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# BROOKLYN MEDICAL JOURNAL

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## ORIGINAL ARTICLES.

### PUS IN THE PELVIS.

BY GEORGE MC NAUGHTON, M.D.

Any inflammatory disease which involves a pelvic organ may lead to the formation and storage of pus in the pelvis, thus including conditions known as pelvic peritonitis, salpingitis, parametritis, perimetritis, ovaritis and cellulitis.

These structures are so intimately connected anatomically, that for practical purposes, it is not necessary to distinguish them.

It is fair to state that the presence of a cellulitis presupposes a peritonitis (circumscribed), and that the reverse is true may be accepted without much question. The same may be stated of a salpingitis or a perisalpingitis.

Pain is the symptom which first directs the patient's attention to her pelvis; as a rule this means a localized peritonitis, an inflammation of that serous membrane being the principal cause of subjective symptoms present in pelvic inflammations. Pelvic abscess is simply an advanced stage of these inflammations.

A consideration of the pathology, and a reasoning from cause to effect will aid in an appreciation of the condition and, perhaps, suggest the proper treatment.

Most of these inflammatory diseases in women originate from a common point, and separate infections are few. Therefore it makes practically but little difference whether one tissue or another is involved first, the result may be the same.

These inflammatory invasions may be very slight, finally interfering very little with the organ or organs attacked; or they may be so virulent as to cause the death of the individual within a few hours.

Again, the most extreme final result (short of a fatal issue), in which the patient continues to live with the external appearance of health, yet sterile and liable to repeated attacks of pelvic inflammation, may ensue; pains may be present to a greater or less degree, the sexual relations unsatisfactory, each menstruation accompanied by disability lasting one to four days. Between

these mentioned conditions may be found all grades, but a continuance of these symptoms for a short time indicates, in many women, whose nervous systems are not at best too stable, a train of nervous manifestations that are familiar to all.

The primary causes of pelvic inflammation, with few or no exceptions, are septic or specific infections, therefore preventable in most instances. Neoplasms, it is true, may be the cause of pelvic inflammation, but usually this is by infection transmitted by means of the neoplasm. Traumatism, of itself, rarely causes inflammation in the pelvis.

These diseases are rare in young girls before puberty. It is probable that the recurring pelvic congestion, incident to menstruation, favors the reception of infectious material.

In 99 cases, tabulated by Bernutz, 43 occurred in puerperæ, 28 after gonorrhea, 20 during menstruation, 8 followed traumatism, 3 venereal excess, 2 syphilitic disease of cervix, 2 were caused by the introduction of uterine sounds, 1 by a vaginal douche.

A little consideration of this report might lead one to almost any conclusion as to the cause; perhaps a fair proportion of the puerperal cases may have been gonorrhea.

The twenty that occurred during menstruation also excite our interest for, surely, menstruation alone will not cause pelvic inflammation. Even menstrual suppression, due to exposure, which we frequently hear about, but rarely see, would hardly cause pelvic inflammation. In regard to the eight traumatic cases, three of which were put down as due to venereal excesses, the very fact of excess suggests ways of infection. Two cases of syphilitic disease of the cervix might also make one suspicious of a mixed infection. Infection by means of the uterine sound may be promptly accepted as a direct cause of quite a proportion of cases. This class may include not a small number who are infected by means of douche tubes, and other mechanical appliances so generally used by women.

It does not require a vivid imagination to appreciate the fact that a woman may receive infec-

tion, not gonorrheal, from the male organ. I fancy this may explain a number of the cases.

Within the month I have seen two puerperal cases of pelvic infection, which were, in my opinion, due to infection (not specific, in the usual sense of the term) received during sexual intercourse. In the majority of instances the first lesion of gonorrhea is found in the urethra and, in many cases it remains there the longest time. The endometrium is next frequently involved, often without a vaginitis. This point should be remembered in searching for the gonococcus. The normal secretion of the vagina makes the lodgment of the gonococcus difficult. The endometrium and the mucous lining of the Fallopian tube are practically the same anatomically, and the specific inflammation is carried, sometimes, very rapidly into the tube.

It is rare to find evidences of gonorrheal inflammation in the anterior surface of the broad ligament. In the puerperal cases where the primary lesion is in the vagina or perhaps in the vulva, the channel of invasion may be somewhat different. The lymphatics in this case being the carriers of the poison.

If the infection which is conveyed by the endometrium be very virulent, the peritoneal cavity may be invaded by extension, and a suppurative peritonitis result, which (under these circumstances) is usually fatal.

Whatever be the source of the infection, the result is quite the same. When the tissues become involved there is congestion, followed by rapid effusion.

At this stage, depending, perhaps, upon the virulence of the infection, or for other reasons not understood, resolution may take place, and the tissues return to a nearly normal condition. If resolution, however, does not take place, the process continues to suppuration. Nature takes care of many of these cases by sealing the pelvic end of the Fallopian tube, thus preventing a direct outpouring of infected material into the free cavity of the peritoneum.

Nature may also seal the uterine end of the tube, in this way making the familiar sausage-shaped tumor. Subsequently the tube walls become inflamed, and the inflammatory process is extended to the contiguous structure, the peritoneal covering of the tube becomes inflamed; lymph deposits occur, making a barrier which effectually protects the general peritoneum. Sometimes a Fallopian tube will have the general appearance of being normal, while a section, examined microscopically, will disclose the presence

of a suppurative process, which may be extended, should the proper irritant appear. Or the process may not extend, and the tube is left in a thickened condition, capable of performing its function, perhaps, but not in normal way; its condition, inviting the accident of ectopic gestation, or perhaps the more serious accident of setting free infected material at the time of labor, after a successful pregnancy. One tube may be capable of transmitting the ova, while the other is sealed; the latter, of course, liable to rupture with the dangers which accompany that accident. Should the inflammation involve the deeper or connective tissue, an effusion takes place which distends the meshes of the connective tissue to its fullest extent. This may, like the effusion previously referred to, resolve, and the parts resume their normal condition. But if this becomes infected from an adjoining structure, suppuration takes place. Then we have to deal with a pelvic abscess of the most familiar type. If this be allowed to remain untreated the wall will become necrotic and break through at the point of least resistance—perhaps the most likely point will be the rectum. These abscesses have been known to find an exit in almost any direction—rectum, bladder, uterus, vagina and peritoneal cavity. Fortunately, at the present time the alert practitioner detects the presence of pus and determines its avenue of exit.

Ovarian abscess in most instances is due to the extension of a salpingitis, the tube attaching itself to the ovary, infecting and usually destroying it. Hydrosalpinx is also one of the results of pelvic inflammation, which may succeed the ordinary effusion, a tubal hemorrhage, or possibly a pyosalpinx. Occasionally the suppuration is confined to the tube, the pelvic end is effectually closed, and the uterine end partly so; the increased pressure of its contents causes a break to occur at the point of least resistance, which may be at the uterine extremity. The contents in this way are discharged into the uterus. This takes place at varying intervals, by which the pressure is relieved, and the patient experiences so much relief that the condition is bearable and continues so for an indefinite period.

Pelvic abscesses of appendiceal origin deserves more than passing notice, because of its frequency, and the fact that in many cases it is not diagnosed.

We may imagine an appendicitis starting in manner similar to that of a Fallopian tube inflammation, by an extension from the caecal mucous membrane. Congestion takes place and subse-



quently an effusion, or the process may stop and the disturbance subside. If it continues, however, precisely the same anatomical changes take place, as have been mentioned in the case of the tube. A limited peritonitis occurs, a fibrinous exudate is deposited, limiting the inflammation and septic process to the cæcal neighborhood.

A viscera being the subject of peritonitis with a fibrinous exudate, is liable to attach itself to any peritoneal surface with which it is brought in contact. This is the reasonable explanation of the pelvic abscesses of appendiceal origin. The tip of the appendix, perhaps, attaches itself to a portion of the pelvic peritoneum and the sub-peritoneal connective tissue, by this means, becomes the seat of a septic inflammation, which finally results in the formation of a pelvic abscess.

A double abscess has been known to occur—one in the true pelvis and one in the iliac fossa.

Under such conditions it would be very easy to overlook either, according to the sex of the patient and the method of examination. Surgeons sometimes are too likely to find one cause of trouble, content themselves with attending to that, and neglecting other conditions that may be very near at hand as, for instance, failing to examine the appendix vermiformis. When operating for diseases of, or accidents involving, the Fallopian tubes, I have several times found this complication.

Likewise one might remove the appendix without discovering the presence of pus, either in the iliac fossa or the true pelvis, for the connecting sinus is not always discovered. Intestinal agglutination may be great enough to quite conceal the presence of a considerable amount of pus in either the false or true pelvis.

Having determined the presence of pus in the pelvis, how shall the case be treated?

Few practitioners at the present time would advocate waiting for Nature to take her course. Up to this point Nature has maintained her reputation for conservatism, but from this point, if left alone, experience teaches the outcome may be unfortunate. As has been stated, a pelvic abscess may empty itself in almost any direction, most frequently through the rectal wall. Such an opening often perpetuates the suppurative process, because the drainage is imperfect. The presence of a collection of pus anywhere in the body indicates its removal if it can be reached. The point of evacuation should be the most dependent, to secure the best drainage. These two points are so generally accepted that the mention of them is quite unnecessary. If, then, we have to deal with a circumscribed collection of pus in

the pelvic cavity, what is the most reasonable method of procedure?

The indications are plain. Nature has walled off the free peritoneum. She has also furnished an avenue of approach that is quite safe in the female, and one that is fairly safe in the male. All cases of pus collection in the lower pelvis of women can be best reached through the vagina, whatever the age of the patient. The vagina is a natural slit which reaches up in the neighborhood of the abscess, and most frequently it represents the lowest part of the abscess cavity.

Methods of securing drainage, tubes, gauze, or whatever may be selected, may be introduced, and drainage can always be maintained from this point. Some surgeons regard this as an improper surgical procedure, inasmuch as they believe the origin of the trouble cannot be or is not reached. They maintain that the original focus should be dealt with; when, in fact, the real point of origin may have recovered.

The danger is always less when approached from below. Of scores of cases treated in this way, I can recall but one that developed serious symptoms afterward. This was a bowel obstruction due to intestinal attachment to the broad ligament. It is a fact, however, that a second operation has been sometimes required, even a subsequent laparotomy has sometimes to be done.

It is the contention of the writer of this paper that all these cases, in either sex, should be evacuated from below, and that the surgeon should invariably avoid the destruction of the barrier between the clean peritoneum and the infected abscess cavity.

If, unexpectedly, the surgeon discovers the presence of pus after entering a clean portion of the peritoneal cavity, he would better tap from below, diminish the tension, and likewise lessen the danger of general infection; thus dealing with the primary point of infection as seems best. This especially applies to abscess of appendical origin.

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In the November, 1906, *Laryngoscope*, a paper by Drs. S. H. Large and Edgar D. Brown details the results of experiments in administering ethyl chloride to animals. The conclusions are that ethyl chloride is rapid in action, causing little struggling; that it is not necessary to abolish the reflexes to establish insensibility to pain; like chloroform it causes a lowering of blood pressure; it first stimulates, then paralyzes the respiratory centre; it is practical as a general anesthetic for short operations and as a preliminary to ether and chloroform, but is not without actual danger when the administration is prolonged.

## SURGERY OF THE FEMALE PELVIC FLOOR.

BY CHARLES JEWETT.

The female pelvic floor with its surgical problems might well be brevetted the *pons asinorum* of the gynecologist. Its surgical anatomy, the nature of its obstetric injuries and the rationale of their repair are questions long in dispute and their solution seems still remote. Despite the ingenuity which has been expended upon operative methods, surgical results often are notably bad. A large proportion of child-bearing women bear witness to the unsatisfactory character of many of the commonly employed plastic procedures.

The existing confusion of opinion and practice in matter of these injuries finds its explanation in the widely differing conceptions of the mechanics of the pelvic floor, of its anatomy and of the nature of the obstetric lacerations. These questions may first be considered in detail.

*Mechanics.* The pelvic diaphragm guards the outlet of the pelvis against prolapse of viscera by resisting intraabdominal pressure. It antagonizes the midriff and the abdominal muscles. It contracts when the opposing muscles contract and relaxes when they relax. When intact it maintains the equilibrium of the pelvic contents. When its integrity is lost equilibrium is impaired or destroyed and displacement ensues.

Much discussion has arisen concerning the relative importance of muscle and fascia in their relation to the supporting function of the pelvic floor. Browning holds that the strength of the septum is dependent solely upon its strong fascial framework. In defense of this view he observes that it is unphysiologic for a muscle to act continuously. Dudley, who has given us one of the best modern works on gynecology, expresses himself in similar terms.

On the contrary, Dr. M. L. Harris contends that the muscles are the only factors to be considered in the strength of the floor. He declares that the pelvic diaphragm depends for its support absolutely on the practically continuous activity of the intact muscles which enter into its formation and that the fasciæ are merely adjuncts to the muscles and in themselves entirely inadequate to give the support required. Reasoning from analogy he points out that notwithstanding the strong ligaments which bind the vertebrae together, scoliosis follows when the muscles on one side of the back are paralyzed or weakened and that the ligaments of the arch of the foot and the plantar fascia are known to yield in paralysis of certain leg muscles.

Webster regards the fascial sheets as the chief agents in resisting intraabdominal pressure, the muscular structures contributing additional strength.

The sweeping statements of both Browning and Harris are too radical. Since the intraabdominal pressure is a varying quantity, the resistance of the pelvic diaphragm must vary accordingly. It must relax and contract to meet the changing tension of pelvic contents. Its ability to maintain the equilibrium must depend upon the muscular, not upon the fibrous elements of its make-up.

It would seem rational, therefore, to look upon the muscles as of first importance, the aponeurotic coverings and tendinous attachments being indispensable to their strength and efficiency.

*Anatomy.* Strangely enough there is no general agreement with reference to the anatomy of the levator ani muscles, the most essential constituents of the pelvic diaphragm. It is very generally assumed that the fibers of the levators run transversely, forming muscular loops behind the vagina and the rectum. This is common teaching even in recent text-books. In a voluminous work just issued muscle fibers of the levator are made to encircle the posterior borders of the urethra, the vagina and the rectum. Many of the current operative procedures are based upon this misconception.

A few years ago the late Professor Browning undertook an extended series of dissections at the Long Island College Hospital, both in the human subject and in the lower animals, with a view to a more definite knowledge of the levator anatomy. While at the time of his death certain minor points had not been fully worked out the main features were definitely established. Two dissections recently placed at my disposal by Prof. Wm. F. Campbell, Dr. Browning's successor in the Chair of Anatomy, have aided in clearing up details. Our findings correspond substantially with the description of Savage and the more recent ones of Webster, of Spalteholz and of Sellheim. I may be permitted to recount briefly so much of the anatomy of the levator and of other elements of the pelvic floor as may be essential to our purpose.

Fascia and muscle, though inseparable functionally, may be described separately.

*Fascia.* From the pelvic walls the two lateral halves of the rectovesical fascia course downward and inward toward the median line with little bellying. Their sweep is sharply downward anteriorly, less so posteriorly. Except where per-



forated by the urethra, the vagina, and the rectum, they blend intimately in the middle line. The shape of this fascia resembles a flattened funnel with its lowermost point in close relation with the external sphincter ani. Three leaflets given off from the rectovesical fascia, as described by Webster, sustain a very important relation to pelvic floor lacerations. One passes between the bladder and the lower portion of the anterior vaginal wall. Another extends between the posterior vaginal wall and the rectum, being continuous below with the connective tissue of the perineal body. The third layer passes behind the lower portion of the rectum and is firmly united with it. These leaflets, Webster believes, "are of

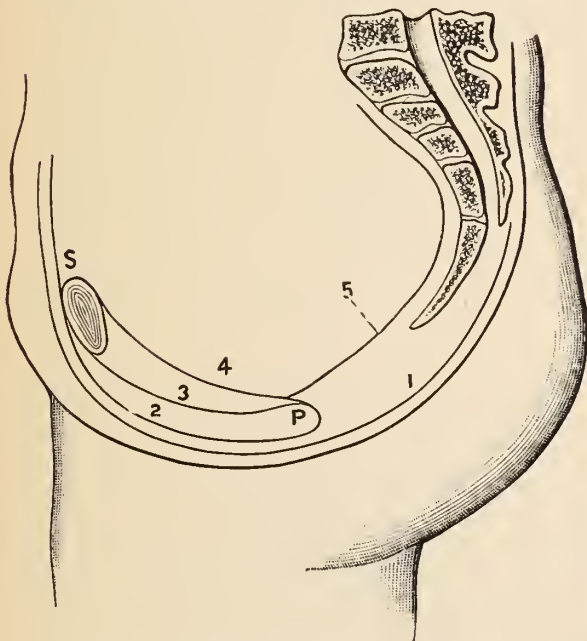


Fig. 1.—Sagittal section of the pelvis. (Browning in Jewett's Practice of Obstetrics.) P. Perineal ledge. 1. Superficial layer of superficial fascia. 2. Deep layer of the superficial fascia. 3. Anterior layer of the triangular ligament. 4. Posterior layer of same. 5. Rectovesical fascia.

great significance and are undoubtedly of chief importance in slinging the bladder the vagina and the lower part of the rectum in the pelvis." It should be noted that the aponeurotic sheaths which invest the rectum and the vagina are extensions of the rectovesical fascia.

The fascial sheets of the opposite sides of the pelvis unite in a median raphe. The posterior layer of the triangular ligament fuses in the middle line with the rectovesical fascia except where perforated by the tubular viscera. Thus we have in the mesial section of the pelvic floor a conjoined tendon not unlike the linea alba of the abdominal wall.

At their posterior border or base both layers

of the triangular ligament unite in the bisischial line with the deep layer of the superficial fascia where the latter turns backward over the transversus perinei muscles, forming the perineal ledge or ishioperineal ligament (Fig. 1). The perineal ledge, a strong fibrous band running



Fig. 2.—Levator ani muscles, showing trend of fibres. Drawing from a cast of a dissection made at the Long Island College Hospital. (Browning in Jewett's Practice of Obstetrics.) 1. Rectum. 2. Coccyx. 3. Pubic band of levator.

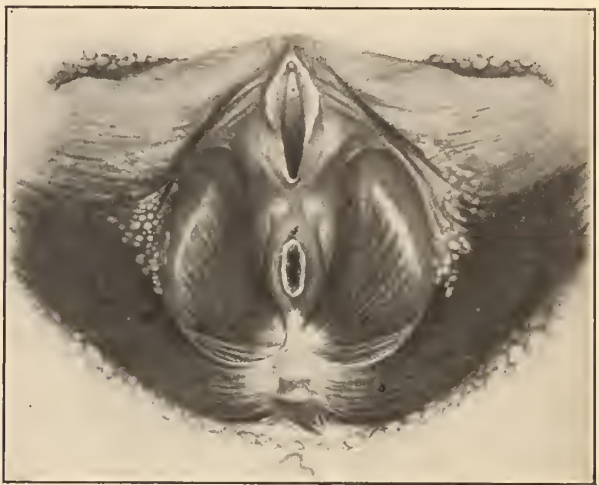


Fig. 3.—Levator ani muscles as seen from below. From a dissection. (Browning in Jewett's Practice of Obstetrics.) 1. Fibers arising from the os pubis. 2. Fibers arising from the white line. 3. Fibers arising from the ischial spine. 4. Sphincter ani externus.

transversely through the base of the perineal body immediately in front of the anal orifice, obviously bears a significant relation to deep perineal lacerations.

*Muscles.* The levator ani muscles have their own sheaths. The latter are firmly united with



the rectovesical fascia above and, centrally, with the deep layer of the triangular ligament below. Nearly all the fibers of these muscles sweep backward toward the coccyx. While the companion muscles are in close contact behind the rectum in front of the coccyx, with a single minor exception to be mentioned later the levators nowhere pass across the median line; they are not continuous with their fellows of the opposite side (Figs. 2, 3, 4).

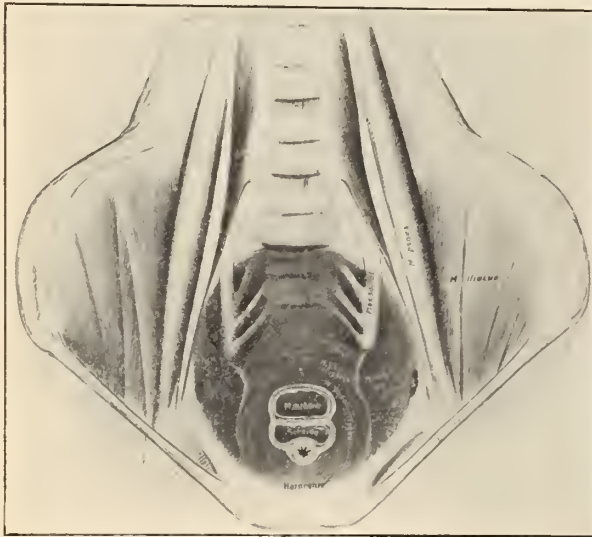


Fig. 4.—Showing levator ani muscles as seen from above. (Sellheim.)

Browning held that absolutely no levator muscle fiber crosses the middle line, that all run to or toward the coccyx. Consistently with this view he pointed to the fact that in the lower animals the function of the levators is to move the caudal end of the spine, to wag the tail. His opinion of the general course of these muscles I have repeatedly confirmed by the study of his and other dissections. His dictum, too, that no muscle fibers traverse the median line is borne out by my own observations except for a few deep fibers of the external sphincter ani. These will be referred to again.

It will be seen that the only part of the levator which is in direct relation with the rectum and the perineal body is its median border. The pubic portion of the levator, therefore, is practically the only division of the muscle which concerns the present discussion. The other divisions of the muscle do not especially interest us. The real levator ani is the pubic band (Fig. 3).

The origin of the pubic division of the levator is much more extensive than appears in most anatomic descriptions. It extends from the posterior aspect of the pubic bone, at a point about

one-half inch from the midsymphysis, along the pubic ramus to the anterior limit of the white line. At its origin the pubic band on either side of the median line is thus about one and one-half inch in width. At its insertion it subdivides into two lamellæ. The posterior or outer lamella, which is much the larger, sweeps backward, by the lateral wall of the vagina and the rectum, and goes toward the coccyx. This is the pubococcygeus. The anterior lamella runs toward the perineal flexure of the rectum. A few of its fibers passing in front of the bowel become continuous through the intervention of tendon with the opposite transversus perinei muscle, a few go to the rectal sheath, others extend into the external sphincter ani of which they form a part. The latter division of the pubic band is the puborectalis. The median borders of the puborectales are separated by a V-shaped interspace. The width of this interspace at the pubic arch is one inch or less. The puborectales, when intact, may distinctly be felt in the living subject by the examining finger. Rendering them tense by backward pressure with the finger of one hand passed within the vaginal orifice, they are readily made out by a finger of the other hand where they sweep by the lateral wall of the vagina, one-half inch or less above the plane of the hymen. They present as two small, firm, more or less rounded, cord-like bands, often thinner than a lead pencil. The course of each may be traced from the posterior surface of the pubic bone backward to the perineal flexure of the rectum. Just behind the puborectalis and running obliquely backward is the pubococcygeus. When these two pairs of muscles contract the finger held in contact with the posterior vaginal wall is lifted forward, toward the pubic arch.

Clinically, the contraction of the pubococcygei and the puborectales, elevating the lower end of the rectum and vagina as it does, gives the impression of a U-shaped sling or loop about the lower ends of these viscera. For the puborectalis this looping is in part muscular. The external sphincter ani is essentially a circular muscle. Its deep fibers decussate to some extent in front and behind. Here we have, so far as I have been able to discover, the only instance in which muscle fibers of the levator overstep the median line. The power of the levators to lift the central portion of the floor depends, in very small degree, on the sphincteric loop behind the rectum. But the muscle fibers of the pubococcygei, as we have seen, do not form a loop behind the rectum. They all pass backward obliquely, alongside the lateral vaginal and rectal walls, all of them going to the

coccyx with or without the intervention of tendon. The apparent looping of the pubococcygei behind the rectum is due to the fact that the companion muscles are linked together by the fascial or fibrous structures, which intervene between them behind the vagina and rectum. As they sweep backward they are intimately attached to the rectal sheath. These fascial or fibrous structures about the rectum it is which connect the pubococcygeus of one side with its companion of the other, and explain their sling-like action upon the central part of the pelvic floor.

The pubococcygei, then, are to the pelvic floor what the recti are to the abdominal wall. This is the salient point in my conception of the pelvic floor in its relation to the lacerations of child-birth. Comparatively few levator fibers traverse the lines in which the principal obstetric lacerations run. For the most part the course of the muscle fibers is nearly parallel to that of the tears, and a little to the outer side of them, nearer the pelvic wall. Except for the perforations by the tubular viscera, their tendinous union in the median section of the floor is comparable to that between the recti abdominis.

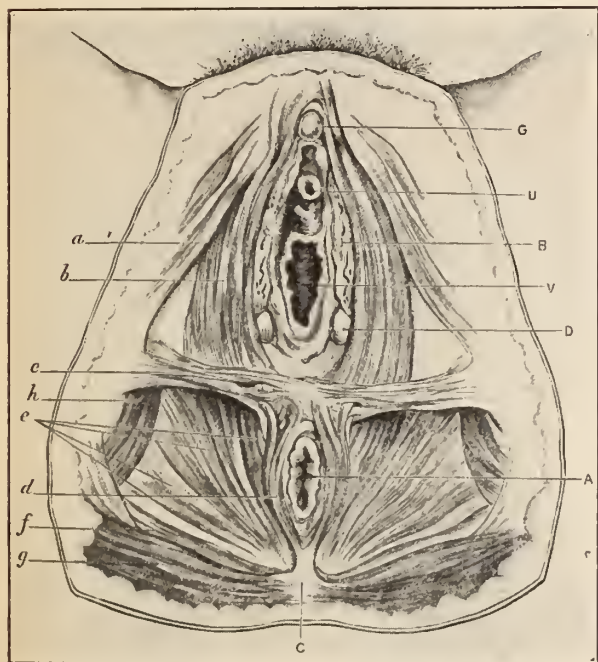
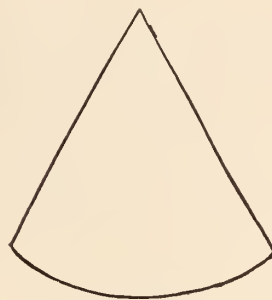


Fig. 5. Muscles of the pelvic floor. (Modified from Savage.)  
b. Bulbocavernosus. c. Transversus perinei. d. Sphincter ani externus. e. Levator ani.

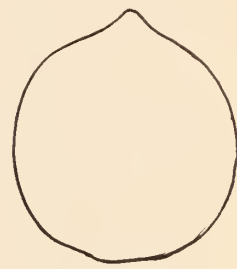
The remaining muscles of the floor, the bulbocavernosus, the transversus perinei and the sphincter ani, lie in a plane immediately below the anterior layer of the triangular ligament and

therefore below that of the hymen. The paired muscles of the latter group join centrally in the external portion of the perineal body, just in front of the anal orifice. These more superficial muscles, though secondary in importance to the levators, deserve some attention as factors in the strength of the pelvic diaphragm. (Fig. 5.)



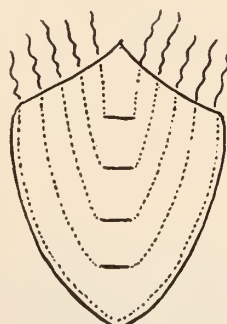
HEGAR

Fig. 6.



DVDLEY

Fig. 8.



GOFFE

Fig. 9



ANDREWS

Fig. 10

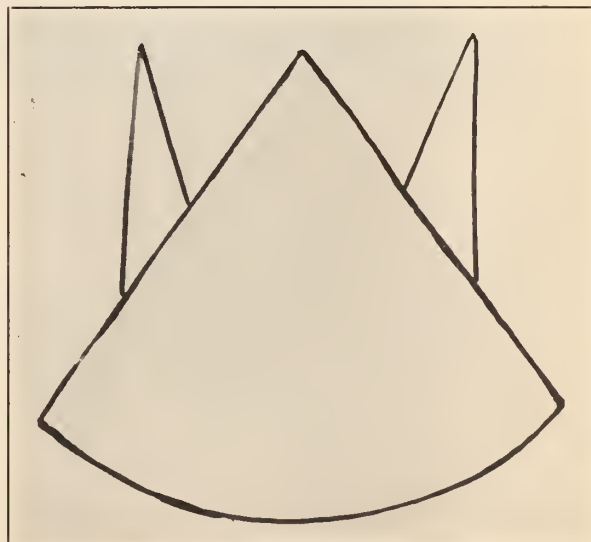


Fig. 7.—Showing failure of the Hegar operation to mend fully the tears in the vaginal sulci.

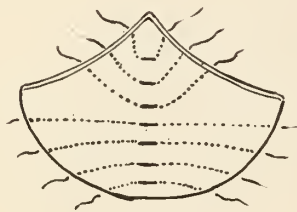


Notwithstanding the ridicule that has justly been brought upon the so-called perineal body as the keystone of the arch, that structure is, nevertheless, an important part of the floor of the pelvis in the sense that it comprises the points of union of all the superficial group of muscles and it is involved in the principal lacerations of child-birth.\*

*Nature of Injury.*—The obstetric lacerations of the pelvic floor as taught by certain authorities, have no constant shape or direction. One author makes more than twenty different varieties of perineal tears. Another declares that it is impossible to comprehend the nature of the injury in a given case until the operator has first tried

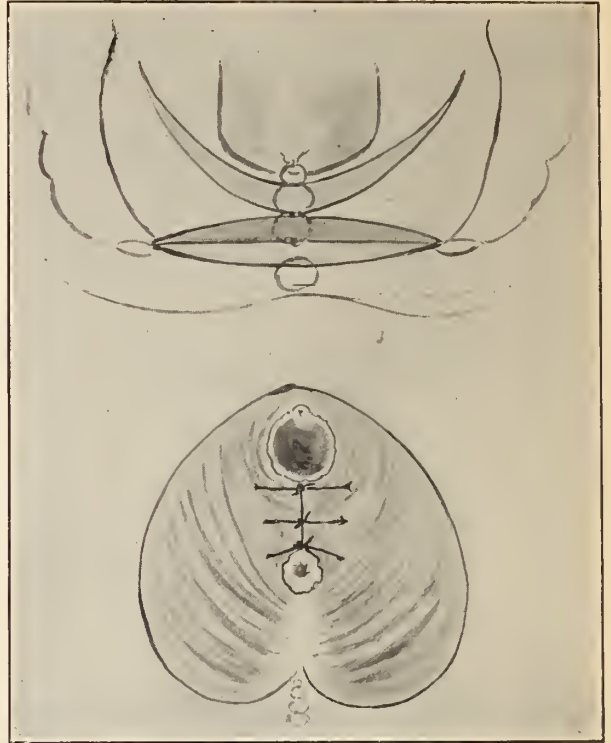
to retraction of torn muscles and, later, to shrinking of scar tissue.

The vaginal portion of the tear severs more or less completely the fascial attachments of the



PRYOR

Fig. 11.



Figs. 14-15.—G. H. Noble.

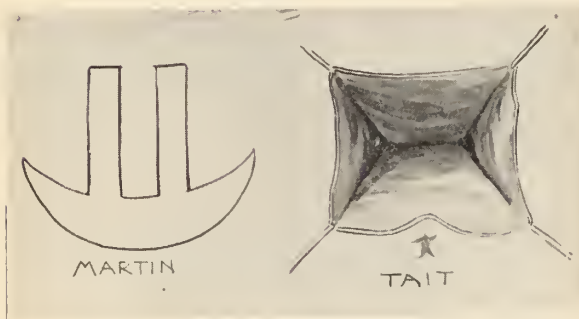
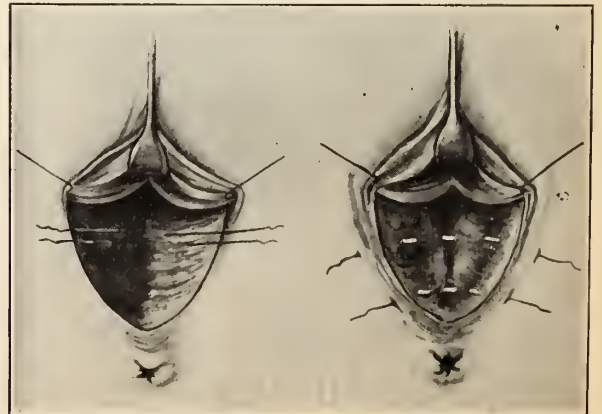


Fig. 12.

Fig. 13.

with tenacula in what direction the torn structures can most readily be brought together. Such teachings make mystery of what, in fact, is comparatively simple. All lacerations which materially affect the strength of the floor run up one or both vaginal sulci, alongside the rectum, and usually extend externally more or less completely through the perineal body nearly in the median plane. Deviations from this form are more apparent than real and are due to overstretching of the floor at the close of labor, in some degree

pubococcygeal muscles to the rectum and ruptures other fibrous structures in the perineal region. It also disrupts in part or wholly the puborectalis muscle of one or both sides. The external tear, that below the level of the hymen, when deep, cleaves the central tendinous union of the bulbocavernosus and of the transversus perinei and also the strong perineal ledge which partly invests the latter muscles. Since the sling-like action of the floor depends obviously, in the main, upon



Figs. 16-17.—Hollen.

\* Thompson's Myology of the Pelvic Floor, a work which has fallen into my hands since reading this paper, agrees in the main with the foregoing.



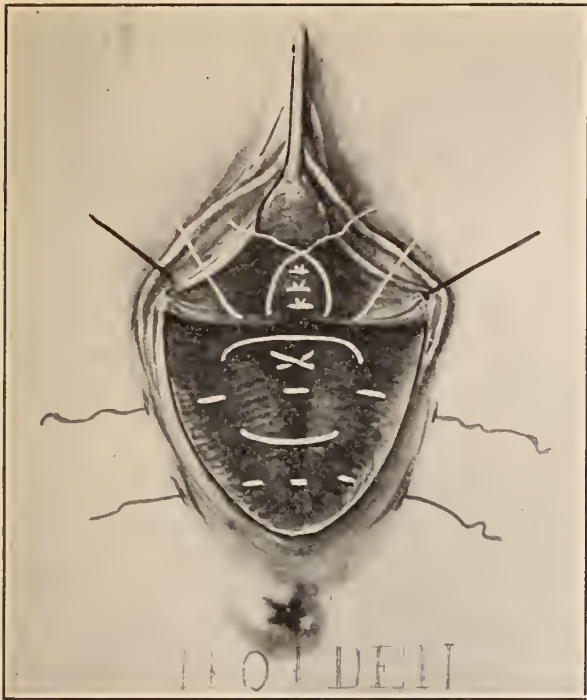


Fig. 18.

the pubic bands of the levators, the most important part of the injury is the tear in the vaginal sulci, so much, that is to say, of the laceration as lies above the hymeneal plane. The external portion of the tear is of secondary importance. Yet it is not so wholly without effect in weakening support as certain authors assume. The

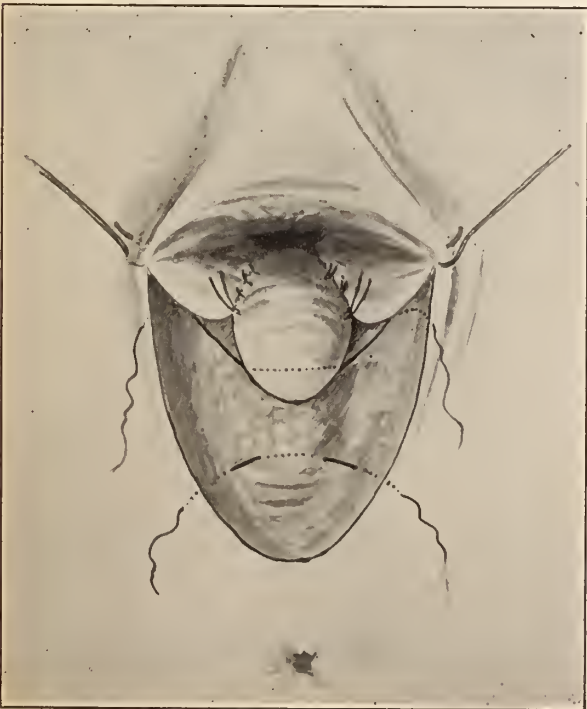


Fig. 19. Emmet.

posterior transverse border of the urogenital fascia or triangular ligament, and the tendinous union of the superficial muscles, both of which are involved in extensive lacerations, are, in a minor degree, elements of strength which cannot be sacrificed without some loss.

*Faults in Prevailing Operations.* In the light of the foregoing facts the defects of many operative methods commonly employed in the plastic surgery of the pelvic floor are apparent. Most of the prevailing types of operation other than Emmet's are represented by those of Hegar, Martin, and Tait.

The Hegar operation makes a triangular denudation with the apex of the triangle uppermost and in the median line. The lateral halves of the triangle are then brought together by sutures (Fig. 6). Operations of the Hegar type coapt tissues from either side of the median line with no definite reference to the normal anatomic relations. They bring together structures that were not intended to come together, and they do not result even in a permanent artificial substitute for the natural mechanism of the pelvic floor. A part of the injury in the lateral sulci, too, is left untouched (Fig. 7).

The methods of Goldspohn, A. P. Dudley, Goffe, Andrews, Pryor and certain others do not differ essentially in effect from that of Hegar (Figs. 8, 9, 10, 11).

Martin's operation, in addition to the usual crescent below, makes two rectangular denudations running up the posterior vaginal wall (Fig. 12). This, while it may serve to narrow the relaxed vagina, does not mend the lacerations in the sulci, since the vaginal denudations are not made at the seat of the injury.

Perhaps the most unscientific of all the procedures commonly practiced is that of Tait (Fig. 13). It makes no attempt to restore the structures *ad integrum*. It masses together indiscriminately tissues between rectum and vagina. Its seductive feature is the facility with which it may be performed.

Certain recent proposals are deserving of more attention. The contention of Dr. M. L. Harris,<sup>2</sup> of Chicago, is of very great interest. He believes the injury is essentially muscular, and appears to fix the responsibility for the relaxation of the vaginal orifice almost entirely upon the laceration of the puborectalis muscles.

The vaginal portion of the laceration, according to Harris, most frequently severs the puborectalis at a point corresponding to the tear in the sulcus. Yet he declares the muscle may sometimes be torn in any other part of its length. His

operation lays bare the puborectalis where it sweeps by the lateral wall of the vagina, resects the cicatricial portion of it and sutures the muscle ends together. Its sole purpose is the restoration of this slender muscular band from 3 to 6 mm only in width. It would seem that he had overestimated the importance of this comparatively insignificant muscle and had overlooked the greater importance of the remaining portion of the pubic band of the levator.

The elevation of the lower end of the rectum and the structures in front of it surely depends more upon the larger muscle, the pubococcygeus, than upon the slender band of fibers which make up the puborectalis. The pubococcygeus is firmly attached to the sheath of the rectum where it sweeps by it and to other fibrous structures of the perineal body. The sling-like action of the levator muscles is due more to the fascial attachments of the larger muscle than to the thin musculo-fibrous sling formed by the lesser one. Not only should the torn puborectalis be restored, but, more important still, the fascial attachments of the pubococcygeus to the rectum and the perineal body must be re-established.

It is to the latter injury that the chief significance must be attached and to this that the reparative attempt must, in the main, be addressed. Operation at the sulci, in the vast majority of cases, at least, if properly carried out, effectually restores the sling-like action of the puborectalis at the same time that the perineal attachment of the pubococcygei is restored. After successful perineorrhaphies the puborectales as well as the pubococcygei may distinctly be felt in their normal relations and tonicity.

An ingenious piece of surgery has been devised by Dr. G. H. Noble, of Atlanta.<sup>5</sup> He makes an irregular quadrangular denudation carried high enough in the vagina to give access to the borders of the levator ani muscles. The anterior border of the levator on each side is then drawn out with tenaculum forceps and its sheath laid open by blunt dissection, in the direction of the muscle fibers. The upper layer of the sheath is separated from the muscle for a short distance and this freed edge of the sheath, together with the edges of the vaginal wall, sutured to the corresponding structures of the opposite side in the median line from the upper limit of the denudation down to the crown of the perineum. Next, a few sutures bring together the muscles. Another tier of sutures closes the lower laminae of the muscular sheath, together with the triangular ligament, the deep layer of the superficial fascia

and the muscular structures between the latter two fascial sheets. A fourth tier of sutures closes the skin (Figs. 14-15). This operation, it will be seen, is analogous to a familiar method of dealing with ventral hernia between the recti abdominis. It consists essentially in suturing together, layer by layer, the pubococcygei muscles and their sheaths in the median line. While it does not restore the primary relations this doubtless affords a barrier to prolapse. It may effect a good substitute for the natural mechanism but the technic is somewhat complicated.

Dr. C. P. Noble, of Philadelphia,<sup>4</sup> exposes the anterior borders of the levators and aims to bring them together in the median line. An improvement on the technic of Noble is described in the current issue of the *American Journal of Obstetrics*, by Holden, of the Johns Hopkins Hospital.<sup>3</sup> The median borders of the pubococcygei are drawn downward and inward and are definitely approximated (Figs 16-17-18). This, perhaps, is the most satisfactory of the procedures which substitute an artificial for the natural relations of the supporting muscles.

*The Rational Method of Repair.* Any rational anatomic operation for restoring the pelvic floor in incomplete lacerations must conform to the Emmet type. The most essential part of the suture is that in the vaginal sulci, above or within the plane of the hymen. (Fig. 19.)

*Immediate Operation.* In the immediate operation the first sutures should be passed from the vaginal surface. They are entered in a direction nearly perpendicular to the vaginal mucosa and are given a wide sweep on the pelvic side to engage the edges of the torn fascial sheets. On the median side they should pick up the sheath of the rectum. The plane of each suture may be somewhat oblique to the vaginal axis, the loop being nearer to the skin surface than the knot, in order to lift the sagging structures which have been pushed downward by the advance of the presenting foetal pole. The trough-shaped wound in one or both sulci is thus closed down to the hymeneal orifice. The external part of the laceration is brought together by two or three sutures, passed perpendicularly to the skin surface. The vaginal portion of the work is facilitated by seizing with a volsellum the central point of the posterior vaginal wall, at its hymeneal border and holding it in its normal position, about three-fourths of an inch behind the meatus urethrae. This develops the gutter-shaped tear in one or both sulci and helps to make plain the nature and



extent of the injury. Lateral vaginal retractors also facilitate the application of sutures.

*Secondary Operation. Incomplete Lacerations.* It would seem reasonable to require that in secondary operations the denudation be done in such manner as to reproduce the original wound, then the sutures may be applied substantially as in the immediate operation, with such modification only as may be needed to overcome whatever distortion may have occurred secondarily. Without going into details, the operation for incomplete laceration should be conducted, in the main, on the lines laid down by Emmet (Fig. 19). Special effort should be made to restore the normal tension of the puborectalis and the attachments of the pubococcygei. Drawing them down with a tenaculum, as the main sutures are passed, may help. Pains should be taken to coapt with the crown suture the posterior canuncles without the intervention of the point of the undenuded vaginal tongue. The latter should fall above the hymeneal ring.

*Complete Laceration.* In complete lacerations, either the operation of Kelly or that of Geo. H. Noble has, in my hands, yielded the most satisfactory results. In either technic the sphincter ends are freed and brought together by buried sutures. Turning down the apron of vaginal mucosa as advocated by Kelly, or freeing and drawing down the anterior wall of the rectum, as practiced by G. H. Noble, effectually shuts off all communication between the wound and the lumen of the bowel. With the wound thus safeguarded against infection union of the sphincter is almost absolutely assured.

### Conclusions.

The pelvic floor is essentially a muscular diaphragm.

The muscles of the floor are disposed in two distinct layers.

These layers are separated by the plane of the hymen.

The upper layer is the levator ani.

The general trend of the levator fibers is toward the coccyx.

The rectum and the perineal body are in relation with the median borders of the levator muscles.

The tubular viscera are slung in the pelvis mainly by the levator attachments to the rectum and to the bridge of fibrous elements in the perineal body.

The most essential part of the obstetric injury

is the rupture of these fascial attachments behind the vaginal sulcus and alongside the rectum.

The reparative operation should be addressed, in the main, to the restoration of these fascial attachments.

Restoration *ad integrum* is best effected by the technic of Emmet.

Holden's is the simplest and most definite of the procedures yet devised which attempts support by substituting an artificial for the natural relations of the pubic bands of the levator muscles.

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### A PLEA FOR THE EARLY OPERATIVE DIAGNOSIS OF CARCINOMA OF THE STOMACH.

BY GEORGE RYERSON FOWLER, M.D.

Upon the occasion of a recent visit by a surgeon whose operations on the stomach number upwards of five hundred, and whose field of work centers in a small town in one of our northwestern States, to one of the largest and best appointed hospitals in the East, surprise was expressed by the surgeon of the latter that so large a number of cases of carcinoma of the stomach should come under the care of the former, while so few, comparatively speaking, were admitted to the service of the latter. For reply the Western surgeon asked to be taken through the medical wards of the hospital. Here the question was answered in part. An inspection showed that there were twelve cases of cancer of the stomach in the institution undergoing alleged medical treatment.

The question naturally arises in this connection, What does the internist expect to gain by the medical treatment of cancer of the stomach? Has not the day gone by when the treatment of cancer in any locality in the body is to be considered amenable to medical aid, this term being used in contradistinction to treatment by surgical means? And if the answer to this be in the affirmative, upon what reasonable basis can the internist retain in his care cases of cancer of the



stomach beyond the time necessary to make a diagnosis? The same disease, when occurring elsewhere, and accessible to operative interference, is turned over to the surgeon, and in direct proportion to the promptness of radical removal of the diseased part is the certainty of the cure of the patient. There is no gainsaying this statement. While it is true that our knowledge of cancer is scanty, particularly with relation to its etiological factors, it is nevertheless equally true that clinical experience has driven home this conviction to the mind of the surgeon, namely, that there is a period of time in the history of every cancerous growth that occurs within reach of the surgeon's knife, when it can be radically extirpated and the patient insured against a recurrence of the disease. This being acknowledged, there is no escape from the conclusion that early and free extirpation of the disease as it attacks the stomach is the only rational course to pursue, and that to temporize with medical treatment is as irrational and unscientific as it is to prescribe arsenic, Cundurango, and Venice turpentine, as was the custom upwards of three decades ago, for cancer of the breast and cancer of the uterus.

It may be urged that in cancer of the stomach the case is different, as compared with the disease as it occurs in the localities just mentioned; that the invasion of the walls of a hollow viscus such as the stomach, with its rich lymphatics and intraperitoneal environment, to say nothing of its great functional activity and vital importance, is a much more serious matter than cancer of a part that can be readily reached and easily spared in the economy of the individual, as in the case of the mammary gland. In answer to this it may be said: first, that the invasion of the stomach in regions not accessible and of supreme importance to that organ is comparatively rare, as will be shown further on; second, that the anatomy of the stomach, particularly the relation of the lymph channels to the lymphatic glands, and the points at which the latter are situated and their relations, in turn, to the regions of the stomach in which cancer most frequently occurs, are such as to permit of complete extirpation of the involved structures in the early stages of the disease; third, that the greater the functional activity of an organ the more rapidly a malignant neoplasm advances in its tissues; fourth, and finally the greater the vital importance of the organ the more imperative the demand for early diagnosis and radical curative treatment.

The most important point in the anatomy of the stomach in its relations to the possibility of

complete extirpation of cancerous disease relates to its lymphatic system and the situation of the lymphatic glands. According to B. Cuneo\* the lymphatics of the mucous membrane of the stomach finally end in a submucous network. From this network collecting trunks arise which perforate the muscular coat and terminate in other collecting trunks situated between the serosa and the muscularis (the sero-muscular collecting trunks), which, in their turn, spring from a subperitoneal network that receives all the lymphatics from the muscularis and serosa. The exceedingly intimate relation which exists between the lymphatics of the mucous membrane and those of the muscular and serous layers of the organ, and the ease with which practically the entire thickness of the stomach wall becomes infected early in carcinoma of the stomach and in cases of gastric ulcer, as well, are therefore apparent at a glance.

The final distribution of the musculo-serous collecting trunks is of interest in connection with our present study. First in importance come those known as the superior or converging trunks (Sappy). These are from 6 to 8 in number. They accompany the gastric artery and converge to join the group of glands situated at the point where the coronary artery approaches the lesser curvature. This group of glands, therefore, receives the lymph current from the body of the stomach, and from the lesser curvature side of both its pyloric and cardiac extremities. There is, however, one exception to be noted in this general scheme of lymphatic drainage from this portion of the stomach, namely, the existence of one or two very fine vessels which pass from the upper part of the pylorus and empty into the lymphatic trunks that lead from the retropyloric glands. With this single exception the coronary chain of the celiac glands receives practically all the drainage of the lymph current from the pyloric end of the stomach through their afferent vessels. In turn efferent glands of this group terminate in the pre-aortic glands which surround the celiac axis. The importance of these coronary gastric glands from the surgical view-point will be referred to later on.

The collecting trunks of the greater curvature pass, generally speaking, in the direction of the gastro-epiploic gastric vessels, that is to say, from left to right, and drain into the glands placed between the layers of the great omentum and around the right gastro-epiploic vein (the

\* The Lymphatics, by G. Delamere, P. Poirier, and B. Cuneo. Translated and edited by Cecil H. Leaf.

sub-pyloric glands). It is to be noted in this connection that the lymphatic current in the collecting trunks of this group drains *away* from the fundus, and *toward* the pylorus. This, together with the further fact that the presence of glands in the fundus of the stomach is very exceptional, and that they are rarely found upon the greater curvature, save a few aberrant glands situated between the layers of the great omentum along the descending branches of the gastro-epiploic arch, is of significance in its surgical aspect.

The collecting trunks of the fundus become the afferent vessels of the splenic chain, passing between the folds of the gastro-splenic omentum in their course toward the hilum of the spleen.

Finally, it should be stated that there is sometimes present small glandular nodules in the course of these different collecting trunks (the parietal gastric glands of Letulle). These may be situated in the walls of the organ, either in the subserous layer or in the superficial portion of the muscular coat, and at variable distances from the curvatures. The presence of these nodules is by no means constant, and when present in cases of gastric cancer their situation in the course of the afferent lymph channels brings them practically within the area of possible extirpation of the disease.

The bearing of the facts detailed cannot be overestimated nor too often emphasized, particularly when considered in connection with the infrequency with which carcinoma attacks portions of the stomach comparatively free from lymphatic glands, and, *per contra*, the frequency with which parts both easily accessible and the seat of lymphatic glands are attacked. At least two-thirds of the greater curvature, and the entire fundus of the stomach is practically free from lymph glands, the latter being for the most part situated on the lesser curvature, about the pylorus, and on the pyloric third of the greater curvature. The lessons to be learned from these special anatomical features of the stomach are obvious. The extent and situation of the lymphatic infection is the most important consideration in operations for the radical cure of gastric cancer, in the vast majority of cases. While it does not necessarily follow that the presence of enlarged lymphatic glands in the neighborhood of a suspicious lesion of the stomach wall is pathognomonic of cancer, yet it is true that, once ulcer of the stomach can be eliminated, the suspicion of carcinoma is correspondingly strengthened. Practically these two conditions, namely, ulcer and carcinoma, are the only lesions of the stomach

that give rise to enlarged lymphatic glands in the neighborhood of that viscus, or, as rarely happens, in its walls. Simple glandular hyperplasia is a rather frequent accompaniment of gastric ulcer, a fact that must be taken into account in performing exploratory laparotomy in gastric lesions. On the other hand, gastric carcinoma, as it comes to the surgeon, presents the almost invariable feature of enlarged lymphatic glands. In the Breslau clinic the proportion was not less than ninety-five per cent. This glandular enlargement in cases in which the disease has reached the stage of ulceration, may be due to septic processes present. It is safest, however, to regard all such enlarged glands as the seat of carcinomatous infection, particularly those situated about the celiac axis.

An important fact, before alluded to, but one frequently overlooked, although bearing directly on the question of the probability of extensive involvement of the lymphatics of the stomach in any given case and hence likely to influence the decision as to operative interference, is the frequency with which different regions of the stomach are first attacked by cancer. Brinton, quoted by Einhorn,\* found that out of 360 cases of cancer of the stomach the pylorus was the part first affected in sixty per cent., the cardiac extremity was first attacked in ten per cent., and that involvement of the different portions of the greater and lesser curvatures represented the remaining thirty per cent. Further, of 1300 cases collected by Welch (quoted by Einhorn), in less than one and a half per cent. the disease attacked the fundus. In other words, according to these figures, the disease is primarily located in the great majority of cases where it would be not at all difficult of removal in the commencement, even if we accept the most unfavorable of these figures as a basis for our argument. As a final thought in this connection the fact should not be overlooked that between thirty and forty per cent. of all cases of cancer involve the stomach.

There can be no doubt that physicians hesitate to recommend surgical intervention to their patients suffering from gastric carcinoma because of the immediate danger to life arising from the operation, as well as because of the uncertainty of permanent cure. And it is unquestionably true that the results will be better in both regards if patients are operated on in an earlier stage of the disease. But here comes the dead-lock. The physician is not willing to turn the patient over to the surgeon until the diagnosis is assured, and

\*20th Century Practice of Medicine, Vol. VIII, p. 248.



when it can be positively stated as the result of laboratory aids and an external physical examination that cancer of the stomach is present, the results of operation are so disheartening that the physician is loth to urge it. And it only too frequently happens that a physical examination is not made, much less laboratory aids brought to the case, until a long period of suffering from so-called indigestion is succeeded by decided loss of weight and marked cachexia, a condition in which the merest tyro in medical science, or even the patient himself or his friends, can make the diagnosis.

In the absence of enthusiasm on the part of the medical attendant in favor of surgical treatment it is little wonder that the patient first tries the X-rays or some other and equally futile expedient, with the result that, if he ever comes to the operating table a condition of affairs is revealed that is only too often impossible of remedy. The surgeon may have presented to him either one of the following conditions: (1) Extension of the disease to surrounding structures that makes a radical operation out of the question; at the same time the wall of the stomach may be infiltrated to an extent to forbid even the palliative operation of gastroenterostomy. (2) The glandular and other involvement may forbid resection, and yet the existence of pyloric obstruction demands gastroenterostomy. (3) The disease may have advanced mainly in the stomach wall, with apparently very slight glandular involvement, and scarcely no adhesions. This condition of affairs offers a temptation to the surgeon to attempt a complete or a partial gastrectomy. If the former is the operation chosen the patient will be very likely to die for want of sufficient rallying power. In other words, the operation kills him, not through any fault of the operation, but because the long existence of the disease and the weakness thereby induced has taken away from him his chance of being benefited by an attempt at radical cure. If partial gastrectomy is decided on, and the surgeon is successful in carrying out the steps of the technic with facility and despatch and the patient rallies, a rapid convalescence and brilliant immediate recovery ensue, only to be followed in a few months, or at the most in a year or two, by a return of the disease, either as a local growth, as a regionary glandular recurrence, or as a metastasis.

This is the case as it is presented to the surgeon in these days, when the absolute hopelessness of cases of cancer, when treated by other than surgical means is recognized the world over. The

cases must be very rare which fall into the surgeon's hands while the growth is still sufficiently localized to hold out a reasonable hope of cure by partial gastrectomy, the least that can be done for the radical cure of gastric carcinoma. In an exceptionally extensive experience in abdominal work I have never yet seen a case of which I could conscientiously say, after closing the abdomen, that either an immediate or a remote recovery was probable. And yet we are able frequently to advance just such favorable prognostics in cases of cancer outside the abdominal cavity.

And thus it comes about that between the tardiness with which the patient consults a physician, the possibilities of delay on the part of the medical attendant in suspecting cancer and instituting proper measures to either verify or annul this suspicion, the unwillingness of the physician to take the responsibility of advising the operation in the face of the high mortality in this class of cases when operated on, and, finally the desire on the part of patients to try other means first before submitting to operation, the surgeon's efforts stand but a poor chance of success in cases of cancer of the stomach. Add to these considerations the fact that the disease may be far advanced and yet not excite any suspicion of its presence even when the patient is himself a surgeon and well skilled in the surgery of the stomach, as happened in the case of the late lamented Professor Mikulicz, and the further circumstance that the classical combination of symptoms, namely, pyloric obstruction, coffee-ground vomit, and the presence of a tumor are of no avail for purposes of early and radical operation, since they are late manifestations of the disease, and the outlook for surgical relief of cancer of the stomach appears very gloomy. Laboratory aids to diagnosis are not always available, and even if applied early in the case, do not always give positive information. The absence of hydrochloric acid may be, and generally is postponed until extensive involvement of the peptic glands has taken place. The demonstrated presence of lactic acid is also a late, as well as an untrustworthy symptom in many cases. In my experience no physician has been willing to advise his patient to undergo a surgical operation upon the basis of the affirmative evidence afforded by the Eppler-Boas bacillus alone.

Now for the other side of the case: In the majority of cases of cancer of the stomach there are sufficiently distinctive symptoms of gastric disturbance early in the case to excite suspicion in



the mind of a physician who is on the lookout for malignant disease, but which, in the mind of a less alert practitioner will pass for indigestion and be treated by bitter tonics, hydrochloric acid, and that least efficient of all remedies, pepsin. Symptoms indubitably gastric in origin, occurring in a patient in middle or advanced life, and which do not yield to rational therapeutic and dietetic measures of treatment in from a fortnight to a month serve as a reasonable foundation for a suspicion of cancer. The medical man who takes the alarm at this stage of the disease, bearing in mind that from thirty to forty per cent. of cases of cancer occur in the stomach and realizing that cure of the disease is possible here as elsewhere, if operative treatment is instituted while the growth is localized, will save many lives. To do this, however, he must have the courage of his convictions, and infuse some of his own optimism into the minds of his patients. On the other hand, he who insists upon the absence of hydrochloric acid, the presence of lactic acid and the Eppler-Boas bacillus, and who, perhaps, delays the diagnosis for the old classical symptoms of pyloric obstruction, coffee-ground vomiting, and a palpable tumor to make their appearance, will bring his patient to the surgeon, if he brings him at all, in a condition beyond operative aid.

And now as to the course to be pursued in order to give patients the benefits of early operation. Plainly, the course lies in the direction of early diagnosis. In the light of what has been said concerning the late appearance of those symptoms on which the profession has heretofore relied, it must be at once conceded that these are not available for our present purpose. Until some more trustworthy means of early diagnosis at the hands of the internist are discovered, the diagnosis must be made by the surgeon. And this must be operative. The keynote of the situation is to submit a patient whose age and persistent gastric symptoms should awaken a suspicion of cancer of the stomach to an exploratory incision. The advice given to the patient to submit to this comparatively safe, and in every way rational operation should not be half-hearted, but decided and in a hopeful tone.

The technic of the exploratory procedure need not detain us in this connection. It may be stated in general terms, however, that the operative effort to reach a diagnosis need not necessarily involve grave risks. The exposure of the stomach through a short epigastric incision in the great majority of instances will not involve a greater risk at the hands of an aseptic surgeon,

than those involved in the administration of an anesthetic, in a patient who has not advanced beyond the stage of suspicion. Even if gastrotomy for the purpose of investigating accurately the interior of the stomach is added to the exploratory laparotomy, grave dangers are not courted. With modern methods of suture of the stomach wall, rapid and trustworthy union is assured, and feeding with small quantities of milk frequently repeated may be commenced and carried forward practically as soon as the patient is past the period of post-anesthetic gastric disturbances. It goes without saying, however, that the surgeon should have the permission of the patient to carry the operation far enough to accurately determine the conditions present, and, in the presence of demonstrable cancerous disease to endeavor, as in the case of cancer elsewhere, to thoroughly eradicate the disease.

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#### POSTOPERATIVE PARALYSIS.\*

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BY RUSSELL S. FOWLER, M.D.

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The occurrence of postoperative paralysis may be disclosed while the patient is recovering consciousness from the anesthetic when the attendant may discover that the patient fails to move the part affected. More commonly, however, the discovery is made at a later time when the patient complains of inability to move the affected part. In case the paralysis affects a part of the body covered by a dressing the discovery may only be made when such a dressing is changed. The reasons for these paralyzes are numerous.

*Paralysis due to operative traumatism.* The cause may be in the operative procedure itself, particularly if the operation has been in the neighborhood of or has involved one or more large nerve trunks. The suspicion would naturally arise, in such a case, that the nerve or nerves had been cut, ligated, contused through improper retraction, perhaps pressed upon by a drainage strip, or even injured by the antiseptic employed. The prognosis will depend greatly upon the rapidity with which symptoms of improvement appear. Should symptoms of return of function appear after a few days or weeks, a rapid recovery may be looked for; if after several months, recovery will be slow; if a longer period elapses without definite symptoms of return of function, recovery

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\* Read before the Brooklyn Medical Society, Nov. 17, 1905.

may be despaired of. In this particular class of cases it is almost always a single nerve that is affected; for example, the recurrent laryngeal in goiter operations.

It is rarely that the exigencies of an operation will demand destruction of an important nerve structure. If such is necessitated by the operation, such nerve structure should be united whenever such a course is practicable. The inclusion of a nerve in a ligature is inexcusable. Sufficient retraction must be employed to clearly expose the operative field, but never to the extent of injuring the underlying tissue.

*Paralysis of an Entire Extremity.* It sometimes happens that an entire extremity is affected; for example, after resection of the elbow there may be found total paralysis of the forearm extending up to but not beyond the level of the operation.

*Hysterical paralysis:* It hardly seems probable that the musculo-spiral, median, and ulnar could all have received operative injury. It may be that such cases are hysterical. If so, there should be other signs of hysteria present. In addition, hysterical paralysis may occur in a part of the body other than that operated upon. True hysterical paralysis occurs in patients having an hereditary predisposition to mental disturbances. Some have post-operative amnesia, others delirium or mental confusion. They may resemble hysterical palsies. That such cases are hysterical in origin is further shown by the fact that such disturbances do not occur in children (Prof. Joffroy of Paris, Congress of French Alienists and Neurologists, August, 1898), and also that they are not observed among soldiers. (Dr. Granjux of Paris, same reference.) This latter is probably due to the care exercised in the selection of soldiers.

*Constriction Paralysis.* The tourniquet is responsible for some paralyzes, though fortunately this cause is rare and can always be avoided. The most common example is paralysis of the musculo-spiral nerve. As a result of carelessness or ignorance, the tourniquet, instead of at a higher level, may be placed around the arm at the point where this nerve curves around the humerus. Constriction paralyzes are more apt to occur in lean individuals.

*Postural Paralysis.* This is caused by improper position of the patient on the table. The nerves affected may be at a distance from the field of operation. For example, a laparotomy case may develop paralysis involving part or all of the brachial plexus or a paralysis of the ulnar

or musculo-spiral nerve. In paralysis involving the brachial plexus the cause resides in a faulty position of the arms above the head. The arms are stretched forcibly above the head, instead of being allowed to assume a natural position. Not only are the nerves put on the stretch, but the position of the arm causes the head of the humerus to press on the plexus, which may be further pressed upon by the clavicle either against the spine or against the first rib.

When the ulnar nerve is affected it will be the result of a faulty fixation of the arm across the chest. If the arms are too tightly fastened respiration is interfered with; if insecurely fastened the arms will fall down beside the chest and are apt to rest against the edge of the table in the neighborhood of the ulnar nerve. In the case of the musculo-spiral nerve the pressure of an assistant leaning against the patient, the arm being fastened across the chest, has been known to cause paralysis.

Other examples of paralysis of the upper extremity are seen in improper Sims' position by not guarding the underlying arm against pressure; pressure on the shoulder by not having the shoulder crutch used in the Trendelenburg position well padded.

In the case of the lower extremity, paralysis may result from pressure or stretching in an improper Trendelenburg position, the patient's legs being flexed at the knees and supporting the entire weight of the body. Stretching of the sciatic nerve may result from a too exaggerated lithotomy position or the lithotomy posts may press too forcibly against the limbs, or an assistant may rest against the leg of a patient in the lithotomy position.

Sensation is disturbed but slightly, and quickly returns.

Paralysis, the result of nerve stretching or nerve pressure from improper position of the patient need only be borne in mind to be avoided. Parts of the body where paralysis is readily produced should be protected from pressure. Exaggerated positions or positions demanding extraordinary strain placed on part of the body should be avoided. The assistant should never rest against the patient. Even slight continued pressure on a patient's chest will produce difficulty of respiration.

It is fortunately true that, while serious paralyzes do occur, they are rare. More often there is present a weakness or paresis of the affected part. This is transitory and easily overlooked. The patient mistakes the feeling of weakness for



a natural outcome of the operation, and at first does not call attention to it. This will be particularly the case if the affected part is covered with a dressing.

These paralyses or pareses may be caused by pressure from dressings upon a nerve. As a rule, it is because the splint has been improperly applied, though it may follow secondary swelling under the dressing. For example, the external popliteal nerve at the point where it goes around the fibula may be pressed upon in dressings for fracture of the leg.

The vital necessity of using every care and precaution in guarding against such accidents is apparent, but even more necessary is their early recognition when they do occur. The longer the conditions causing them are allowed to persist the more lasting will be the paralysis. If for no other reason dressings should be inspected and the condition of the parts noted at sufficiently frequent intervals to guard against such calamities. This is particularly true in cases in which such disturbances are likely to occur. The earlier the condition is noticed, the more rapidly, safely and easily can a normal condition be brought about by an immediate removal of the cause and the administration of galvanism, faradism and massage to the affected member.

*Ischemic Muscular Paralysis and Contracture.* When paralysis occurs as a result of direct pressure upon a nerve trunk the condition is bad enough, but an even more hopeless condition may follow if the blood supply of the part is seriously interfered with. Such a condition may follow the ligation of the main artery of a limb, but is more commonly due to an improperly or too tightly applied dressing, particularly unelastic dressings. It may well be that the dressing does not cause an artificial anemia at first, but only after some swelling has occurred. For this reason cases in which plaster dressings and other non-elastic dressings have been used should be inspected shortly after the application of such dressing in order to insure that good circulation is present in the part. The local anemia means insufficient nutrition of the muscles, and the result is a rapidly progressive atrophy which, in turn, results in paralysis. Electric irritability diminishes, faradic reaction is lost first, later galvanic. Contractures appear early, almost simultaneously with the paralysis. The prognosis is very unfavorable. This is perhaps because, as a rule, the condition is not noted until a change of dressing is necessary, by which time the atrophy may be well established. Only in the milder

cases is recovery possible. Usually not only is restoration to the normal impossible, but not the slightest improvement can be noticed. The contractures increase steadily. Treatment, electricity, massage and douches, should be continued for months in any event.

These ischemic paralyses are noted more frequently in the treatment of fractures, particularly simple fractures. In compound fracture the voluminous aseptic dressing necessitated by the wound allows of more swelling to occur inside the plaster cast without pressure effects. Moreover the case is seen oftener, as the wound requires change of dressing. Since these paralyses may occur so readily, great care should be taken in the application of the dressing, which should be inspected frequently during the first few days. The patient and his attendants should be instructed to be on the watch for swelling. This will be indicated by change in the distal portion of the extremity, which should be left uncovered for this very purpose.

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#### THE MEDICAL SIDE OF SURGERY.\*

BY WILLIAM S. HUBBARD, M.D.

The title of the few remarks which our by-laws allow me to make at this time, was chosen for want of a better to express that more comprehensive view of the surgical treatment of disease which may be said to accord with the license to practice medicine.

Surgery then, legally speaking is a department of medicine and cannot in any sense be said to exist these days as a separate science or art.

Time was when the few arts of surgical character were performed by men untrained in "physic" for example, cupping and bleeding as practiced by barbers, and for a time the more heroic and extensive operations were done by men not licensed or recognised as qualified to take the whole charge of the health of the patient. Later, however, and I believe first in England, it was required by law that the man who would do surgery must, notwithstanding the limited field of work which he proposed to enter, take his degree in medicine. Whether he would or not, he must become a Doctor of Medicine and not only a Master or *Mr.* of Surgery. Such is the law in this country. In the first instance all are graduates in medicine and qualified in most of our states by special license to practice medicine in all its branches.

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\* Read before the Brooklyn Surgical Society, Nov. 2, 1905.



It is very far from my purpose or desire to call in question the skill or ability required to perform well any special work, but it is rather my wish to discuss the bearing of the general training of the physician on the treatment of very many surgical diseases and to show, if possible, that the treatment of those diseases, the welfare of the patients and the question of the good health of the community still demand and rightly so the exercise of the best powers of the physician as well as and as much as the more specially trained skill and sense of the surgeon even in the care of any of the more distinctly surgical diseases.

The cause of the disease, its pathology, and its symptomatology are to be viewed from the most comprehensive view-point as well as from the most limited and the prognosis and treatment must be based upon those broad and sound principles which the science has established and which are never in conflict with the dictates of a judgment rightly trained to the work of a limited sphere.

In an age when there is so great a tendency to do something in any sets of conditions, when efficiency is measured by action, when strenuous effort is so much the mark of accomplishment; it seems well occasionally to inquire into the value of knowledge, of deliberation, of patience and of withholding the hand. Whether it is not, sometimes, better to know before we do, to think well and thoroughly before we act, to wait before we venture.

This desire to be doing invades the realm of our professional sphere.

The tendency to do surgery seems at times to overshadow the value of knowing medicine, and yet I conceive that at all times the best interest of our patients is conserved by the widest possible consideration of the conditions surrounding any given case, though it be of undoubted surgical character. This applies not only to cases of minor surgery but to the more serious major operations as well, and that surgeon is to be considered greatest who surveys the situation with the broadest range, whose accuracy in diagnosis is as clear as his operative technic is faultless, whose prognosis is as sound and his treatment as general and complete as his boldness and flourish are undaunted. And I do not for one moment under-value the importance of correct technic and fearlessness with the knife, but I would make these things subordinate in the matter of a safe and desirable outcome in any given case to the vastly

more important correct and perfect understanding of the matter in hand and what may rightly be expected as the best possible outcome, and the use of all the methods of the science which are applicable in furthering that outcome.

To illustrate: It sometimes happens in our hospital work that an operation is made upon a patient, who is found on the surgical side, whose history has been hastily taken by the house staff, and the attending surgeon has either carelessly confirmed the diagnosis made on the outside, or left it to be made at the operating table. The previous history of the case, the treatment up to the time of the patient's admission, are neglected as of but little import, and the whole welfare of the patient is placed on the result of the contemplated operation. This completed, too often it happens that the care and oversight of the surgeon in charge cease and the after-treatment, than which very often nothing is of more importance, is left to the mercy of the eager but inexperienced house staff.

Again, a minor case, a leg ulcer of long standing, comes to a clinic and, in spite of repeated and varied local treatment, or even thorough curetting, persistently refuses to heal, till, late in the case, it is discovered that the patient's urine contains sugar. Correction of the diet promptly and effectually supplements the surgical efforts, and the ulcer begins to improve.

Shock, following operation, is often over-treated, in the eagerness of the surgeon to be doing something, when the knowledge of the slow yet sure action of just enough medication, and a good deal of patience, will many times save a heart from giving out under over-stimulation. Proper preparation, and shortened time of anesthesia, both before and during the operation, will often forestall subsequent shock of operation.

Securing the best possible resistance is as important to the patient as performing the most capital operation.

It is often far better not to operate at all, as a last resort, when the knowledge that the chances are vastly against recovery will certainly satisfy the patient and his friends.

Again, the substitution of another and equally trying set of symptoms, subjective and objective, cannot be regarded as a cure, even though this state of affairs was obtained by an operation carried out under the most perfect conditions of asepsis and surgical technic.

Financial possibilities and urgency should

never influence the surgeon to operate upon his patient.

Better far a conservative opinion and a withholding of the hand than a patient maimed and suffering from the results of the most accurate but ill-advised surgical dissection (and never the pleasure of seeing one's case reported before the learned society).

Time and again kidneys are anchored, only to give as much pain as before, which might have been as satisfactorily, and with less trouble to the patient, secured by the good effect of a reasonable vacation, and the toning up of the tissues surrounding these organs.

Without doubt, the greater number of the members of this society rightly value every branch of our science, and there are few if any who would take other than a conservative view of any case presented to them. Still it is to be noticed that many cases, tired of the offer by reputable surgeons of operations as the only means of relief, turn for care and treatment to those less proficient in the surgical art who are yet endowed with an ability to view disease in a broad sense, and who, by patience and perseverance in non-operative treatment, further recoveries as permanent and as satisfactory as need be, in spite of the discouraging dictum of the too-ready operator. Pain in the side is not always appendicitis, and now and then the refusal of the patient to be operated is the first step toward a prompt recovery from a condition which was not surgical, though closely simulating the dreaded inflammation at McBurney's Point.

Care, great care and precision in diagnosis, is the first work of the true surgeon. The patient is, after all, to be considered above his disease, and a lack of interest, on the surgeon's part, following the expressed unwillingness of the patient to undergo operation, should often give way to untiring effort to relieve the condition short of operating, or at least to a willingness to follow the condition to the end, which may be a happy restoration to health. Here again may be mentioned the movable kidney and the prolapsed, but movable, uterus.

Constructive conservatism should be set over against destructive radicalism. Unless operative work is the only thing to be considered right for the best interest of the patient after the whole condition is surveyed in the broadest view, medically as well as surgically it is not to be advised, but it is to be advised against. Every case entrusted to the care of the surgeon should receive

the most careful handling. Much can be accomplished by intelligent preparation and careful regulation throughout the course of a surgical procedure whether the case be operative or a fracture, a tumor, a bruise or a burn.

Anything that contributes to the patient's well-being and ultimate restoration to health must not be slighted as of no value. Nature is always and indefatigably at work preserving health. She is to be assisted intelligently in every effort.

Rest of mind and body, general rest and local rest, freedom from irritation, and cheer are of very great aid to prompt and continuous improvement; and when the time of convalescence approaches, that halfway condition of unstable equilibrium should receive the studious direction of the surgeon who would work the greatest good as the result of a surgical effort.

Take a case of bow-legs or knock-knees for instance: operate and straighten the legs; put on plaster and order the patient to bed for six weeks, only observing the temperature to note the absence of infection. Take off the casts and let the patient up to walk and you should expect to see the legs soon bending again; and yet it is not so very uncommon to see cases that have received just this treatment. Here a course of bone-building tonics and food for six months to two years would supplement the operative work and render that work satisfactory and perfectly remedial. The one way is bad, the other way is the best surgery.

Herniæ radically operated are often lost sight of till they recur for lack of careful attention; others, unoperated, are now and then as radically and as perfectly secured by a reasonable course of truss treatment.

In the matter of prognosis I believe that some stress may yet be laid upon conservatism. Not only that we may not too often be proven to have erred in fact, but that the patient and the doctor may be given the benefits of a reasonable conduct of a doubtful case, and the irregulars robbed of extravagant fees for work accomplished by the oil of time and the encouragement of non-operative work.

Lastly, in those cases where hope is lost and the end is near, the great surgeon may still exert a great and good influence, through doing nothing, in the assurance that his inactivity is of the same high order as in other cases a most heroic action would be, and looks only to the relieving of his patient from any added suffering.



## TRANSACTIONS OF SOCIETIES.

THE MEDICAL SOCIETY OF THE  
COUNTY OF KINGS.

STATED MEETING, DECEMBER 19, 1905.

The President, J. W. FLEMING, M.D., in the Chair.

There were about 125 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

## REPORT OF COUNCIL.

The Council reported favorably upon the following applications for membership:

Frederick J. Bruce, 246 Sixth Avenue.

Moses Kahn, 277 Graham Avenue.

Frederick Schroeder, Jr., 22 St. Marks Avenue.

James S. Slavin, 174 North Sixth Street.

Theodore L. Vosseler, 370a Monroe Street.

## APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Louis F. Light, Forest Avenue and Butler Street, East Williamsburg, L. I., Cornell, 1903. Proposed by William Pfeiffer, seconded by O. A. Gordon.

Henry Moses, L. I. C. H., 1904. Proposed by W. C. Wood, seconded by E. W. Vietor.

J. N. Teeter, 169 Washington Park, Bellevue, 1892. Proposed by Membership Committee.

William C. Stolworthy, 506 Ninth Street, N. Y. University, 1903.

George C. Owens, Kingston Avenue and De-graw Street, P. & S., N. Y., 1903. Proposed by J. A. Lee, seconded by E. J. Morris.

## ELECTION OF MEMBERS.

The following, having been duly proposed and accepted by the Council, were declared, by the President, elected to active membership:

Charles Eastmond, 382 Adelphi Street.

Samuel K. Frost, 810 Washington Avenue.

Horace Greely, 147 Pacific Street.

James M. Kerrigan, 171 Gates Avenue.

John C. Merchant, 162 Engert Avenue.

Alexander Spingarn, 649 Willoughby Avenue.

## SCIENTIFIC PROGRAM.

1. Paper: Medical Problems to be Solved by the General Practitioner. By Louis C. Ager, M.D. Discussed by Drs. Van Cott, Bristow and Wheeler. Closed by Dr. Ager.

## EXECUTIVE SESSION.

In accordance with suggestions contained in

Dr. Ager's paper, the President appointed Drs. Ager, Van Cott, Bristow and Wheeler a committee on the subject to report at the January meeting.

An expression of opinion being sought from the members of the Council as to the advisability of admitting to membership in the Society practitioners of medicine, graduates of eclectic and homeopathic schools, who renounce publicly the practice of sectarian medicine; after some discussion.

It was moved and seconded that the matter be laid on the table. Carried.

The following resolution was presented, and, on motion, duly carried, adopted:

*Resolved*, That the Council of the Medical Society of the County of Kings is hereby requested to co-operate in every practicable way with the efforts of the best medical journals throughout the United States to cleanse the advertising pages of the medical press.

The following notice of an intention to move at the annual meeting that the constitution and by-laws be amended was presented in writing by Dr. Bristow:

"I hereby move that the Constitution and By-Laws of this Society be amended, so as to be in accordance with the Constitution and By-Laws of the Medical Society of the State of New York, as adopted and accepted by this Society at a meeting held February 13, 1904."

The form of constitution and by-laws required by the Medical Society of the State of New York was read by the Secretary.

Dr. Browning moved that a copy of the proposed by-laws be sent to each member of the Society before the next annual meeting. Seconded.

Dr. Bristow moved to amend, with the view of saving expense, that these by-laws be printed in the next number of the BROOKLYN MEDICAL JOURNAL. The amendment was accepted by Dr. Browning, and the motion carried.

Attention being called by a number of members to inconsistencies between the by-laws as proposed by the Medical Society of the State of New York and those of the Medical Society of the County of Kings;

It was moved and seconded that authority be delegated to the Council to make such alteration in the new Constitution and By-laws as will avoid or do away with such inconsistencies. Carried.

## NOMINATIONS.

The following nominations for officers for the ensuing year were made and duly seconded:

For President, William F. Campbell; for Vice



President, Glentworth R. Butler; for Secretary, John A. Lee; for Associate Secretary, William A. Jewett; for Treasurer, Onslow A. Gordon; for Associate Treasurer, John R. Stivers; for Censors, Julius C. Bierwith, Henry G. Webster, Thomas R. French, Ralph H. Pomeroy, John R. Kevin, James P. Warbasse, Robert E. Coughlin, William C. Woolsey, Henry C. Keenan, Robert T. Wheeler, Walter C. Wood; for Directing Librarian, James P. Warbasse, James M. Winfield; for Trustee, James W. Fleming.

Adjourned.

JOHN A. LEE,  
*Secretary.*

### **Proposed Amendments to the Constitution and By-Laws of the Medical Society of the County of Kings.**

Chapter I. remains unchanged.  
Chapter II. remains unchanged.  
Chapter III. remains unchanged.  
Chapter IV. remains unchanged.  
Chapter V. remains unchanged.  
Chapter VI. changed to read as follows:

#### **CHAPTER VI.**

##### **SECRETARY.**

Section 1. The Secretary shall make and preserve the minutes of the meetings of the Society; shall conduct its correspondence; shall issue all notices of meetings; shall notify candidates of their election and members of their appointment on Committees or of their election as Delegates.

Section 2. He shall supply applicants for membership with the necessary blanks.

Section 3. He shall keep a roster of its members and of all other registered physicians of the county, in which shall be shown the full names of such physicians, with their addresses, the colleges from which they graduated, the date of graduation, the date of their license to practice in this State, and so much other information as may be deemed to be useful.

Section 4. In keeping such roster the secretary shall note changes in the personnel of the profession by death or by removal to or from the country, and in making his annual report he shall endeavor to account for all physicians who shall have practiced in the county during the year.

Section 5. He shall forward a copy of the roster of officers and members (list of delegates and list of other registered physicians of the

county), to the Secretary of the Medical Society of the State of New York thirty days before the date of its annual meeting, and shall perform such other duties as pertain to the office.

Section 6. Clerical assistance, when necessary, shall be provided by the Board of Trustees.

Chapter VII. remains unchanged.

Chapter VIII. shall read the same, with the exception of Section 2, which shall read as follows: It shall be the duty of the Treasurer to present a bill of the annual dues to each member every year, including State per capita assessment, showing all arrearages, and to demand payment of the same, at least twice while unpaid, during the year in which such bill may have been rendered. For this purpose, the Treasurer is authorized to have the necessary blank printed, and to employ a competent collector.

Chapter IX. remains unchanged.

Chapter X. remains unchanged.

Chapter XI. remains unchanged.

Chapter XII. remains unchanged.

Chapter XIII. remains unchanged.

Chapter XIV. changed to read as follows:  
Section 1. remains the same.

Section 2 and 3 to read as follows:

Section 2. One delegate for each Assembly District in the County shall be elected at the annual meeting to represent the Society in the house of delegates of the Medical Society of the State of New York.

Section 3. One delegate from each hundred members or fraction thereof shall be elected at the annual meeting to represent the Society at the annual meeting of the District branch.

Add Section 4. The delegates shall be elected by ballot and the same by-laws shall apply as at the election of officers.

Add Section 5. At the first election held after the adoption of their by-Laws, half the delegates shall be elected for one year and half for two years and thereafter delegates shall serve for two years.

Add. Section 6. When a County Society is entitled to an odd number of delegates, this odd number shall be elected for two years.

Chapter XV. changed as follows:

Section 1 remains unchanged.

Section 2 is omitted.

Section 3 remains the same but becomes Section 2.

Section 4 remains unchanged, but becomes Section 3.

Section 5 changed as follows, and becomes Section 4: Each member shall pay annually the assessment levied by vote of the Society at the annual meeting, which shall be due on the first day of February, at the same time he shall pay the amount of the per capita assessment of the Medical Society of the State of New York, fixed by the House of Delegates for the current year.

Section 6 changed to read as follows, and becomes Section 5:

Section 5. All members who have not paid their annual County dues and State assessments on or before the first day of May of each year shall be placed on the list of members in arrears for dues and assessments and so reported to the Society at its next meeting, and shall not receive the publications, or notices of meetings, or defence for suits for malpractice until their dues are paid.

Section 7 changed to read as follows, and becomes Section 6:

Section 6. All members who fail to pay their arrears on or before December 31st shall be dropped from the roll of membership.

Section 8 remains unchanged, but becomes Section 7.

Section 9 dropped.

Chapter XVI has title changed to Membership.

Section 1 changed to read as follows:

Membership in the Medical Society of the County of Kings, the second District Branch of the Medical Society of the State of New York may be obtained by physicians in good standing, residing in the County of Kings and duly licensed and recorded in the office of the County Clerk of Kings County, State of New York, under the Constitution and By-Laws of the Medical Society of the State of New York, in the following manner:

Section 2 as follows:

Section 2. Applications for membership shall be made on blanks furnished by the Medical Society of the State of New York, signed by the applicant and endorsed by two members of the County Society. Such blanks shall be sent to the Secretary who shall present them, without delay, to the Board of Censors for investigation and report.

Section 3 remains unchanged.

Section 4 changed to read as follows:

Every person thus admitted resident member shall, within three months after due notification of his election, pay an initiation fee of five dollars and the assessment of the Medical Society

of the State of New York for the current year (which shall relieve him from any further assessment until the next annual meeting), sign the By-Laws (Chap. vi., Sec. 3), giving his age, place of birth, and the name of the institution whence he graduated, and such data as may be required by Historical Committee or forfeit his election. (Chap. xx, Sec. 8).

Section 5 changed to Section 8, and new sections 5, 6 and 7 added as follows:

Section 5. Candidates duly elected shall qualify as members by signing the Constitution and By-Laws of the Society, District Branch of the Medical Society of the State of New York.

Section 6. All resignations shall be in writing and shall be sent to the Secretary and referred to the Council or the Society at its first meeting after their receipt. If accepted the member thereby severs all connection with the Society, the District Branch and the Medical Society of the State of New York and relinquishes all right and title to any share in their property. No resignation shall be accepted from a member owing dues or assessments or under charges.

Section 7. When a member removes to another county his name shall be transferred to the roll of members in the county of his new residence.

Section 8, which is old Section 5, remains the same.

## CHAPTER XVII.

Section 1 remains in abeyance to await the action of the referendum.

Sections 2, 3, 4, 5, 6 remain unchanged.

Chapters XVIII, XIX and XX remain unchanged.

## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, NOVEMBER 21, 1905.

The President, J. W. FLEMING, M.D., in the Chair.

PAPER: THE STRENUOUS LIFE OF SCHOOL CHILDREN. BY WILLIAM P. NORTHRUP, M.D., NEW YORK, PROFESSOR OF THE DISEASES OF CHILDREN OF THE N. Y. UNIVERSITY AND BELLEVUE HOSP. MED. COLLEGE.

(Abstract of Paper.)

Dr. Northrup began his address by saying that the subject under discussion was one which comes near to being the most vital to us all. His remarks were in part as follows:



"This paper takes it into primary consideration that the child of the family is the one valuable possession. Former tribal conditions in which the child was relegated with hirelings and dogs to the corners and upper floors, have happily passed away. We are considering the beginning of systematic education, of mental discipline, the enlistment into a life of comradeship, of drilling in ranks, of comparing abilities and of testing strength. In its totality this is the time of life in which begins the building of the American citizen. Is there a more important function for the physician than the supervision of these ten years of life? Nobility of character obliges, likewise American citizenship. The public school is the maker of citizens. To us as physicians belongs the task of assisting the little volunteer to endure the strenuous life of camp and drill, and even to grow strong as the campaign goes on. It is only secondarily our function to look into the list of studies and requirements with a view to modifying them. Our department is wholly medical, or perhaps better, physiological. We should not wait till medicine is needed. The Twentieth Century call is for prophylactic measures. In school work we may not select. We must take all volunteers, and furthermore keep them able bodied. We must keep them fit for the firing line and return them veterans. They should even grow and get hard in the training. School life should teach them the care of themselves. Addition of fractions should apply also to the daily accumulation of knowledge and physical endurance.

In March the Pediatric and Neurological Clinics of New York receive a crop of worn-out school children—neurasthenics. My own experience is so annually regular that I have fallen into a routine method of impressing the case upon the students. A girl about 9 to 12 years old is brought by her mother to the Clinic on Saturday. As the girl stands in the amphitheatre she is seen to be pale and jerking. To you she obviously has chorea. "What is your name?" I ask. No answer, and she glances at her mother with an imploring look. "How old are you?" No answer. At this point there is room for a little manoeuvring. I turn to the class, and begin something like this: "This little girl goes to school (a sidelong glance detects a light in her eyes), she can read pretty well and spell fairly," (a few jerks and grimaces, and a look at her mother). Then I add in positive tones and in rapid succession, "She stands at the foot of her class, and is frequently late to school."

At this point the jerking stops, the grimaces cease, and with complete absence of all self-consciousness she flashes out: "No ma'am, I'm never late, and I'm *first* in my class." Here a reconciliation is effected and all are friends together. Further indirect question brings forth the fact that she sits not in the front seat under the eye of the teacher, but in the back row with the trusted one who have records to sustain. She hurries home from school, is never kept late, takes a few moments of out-door play because someone has prescribed it, runs home, curls up and studies hard until the evening meal. This meal she engulfs in the shortest possible time, slips off her chair, and is soon at her book again. She is the conscientious pupil. She studies until someone insists on her going to bed, and often continues to study after she has gone to bed. Early in the morning, after a night of dreaming over those awful fractions, our pale, jerking, grimacing girl awakes again to the strenuous demands, and studies until breakfast. One eye is on the clock—she must *not* be late. Her hair must be braided tight and her dress buttoned up the back before breakfast, for being late once would spoil her record. If she fears the clock is slow, and that her competitor across the street has already started for school, breakfast is the home stretch on which she can make up lost time. By long experience she learns what portion of the food on the table will traverse the upper digestive ways the most rapidly. Potato and gravy with a liberal wash of water or tea or coffee is the breakfast most approved by the record breaker. In an incredibly short space the child has finished her intake of food, and is ready for the start, and away she dashes like a fire horse on a hurry call.

The good girl has at last, after anxious and strenuous preparation arrived at school, and it proves to be by accurate time three-quarters of an hour before the bell, and fifteen minutes before the doors are open. Three-quarters of an hour before time, and all this race and haste, worry and running, but she keeps her back seat, and her record is unbroken!

This audience can easily imagine several physiological functions impaired by worry and haste, and some daily needs possibly postponed to Saturday and Sunday. You will wonder where the dweller in crowded districts may in such strenuous life snatch a few hours of tranquil daily recreation in outdoor sunlight, and how the nerves in this strenuous existence are to be daily nourished and rested. Alas, they are neither

rested nor nourished. They fall daily further into arrears. They may drag on till early spring, like our typical case. In March is the Feast of St. Vitus.

It is well to reflect on the critical physiological changes which our little student is undergoing between the ages of eight and thirteen. She is rapidly manufacturing new cells, she is building great additions in bone, muscle and glands, she is developing, training and disciplining her cerebrospinal and sympathetic systems. She is changing her milk teeth for tearers and grinders, preparing for heartier food. She is further developing a new function, passing from infant life to maturity, experiencing a change of such critical magnitude that all nature appeals to the generous impulses of human protectors to lighten her burdens, to safeguard the best interests of the budding woman and future mother.

It is for others to discuss shortening the hours of study, or interrupting them with longer intervals of recreation. There are wise heads considering the subject. I can only say the present public school course and competitions give the sensitive, conscientious child a strenuous life. In every team the quicker horse jumps first, the willing horse foams under the harness. The scoldings administered to the dullards of a class pierce only the souls of the sensitive. The conscientious are hurt by reproaches intended for those whom they never reach. Our attention is not just now called to the lazy, the lethargic, the truant or robust. It is to the delicate, sensitive, conscientious little worker, whose sleep is impaired by dreams of lessons, whose nervous tension handicaps in the race, whose daily balance sheet of vitality ceases to show a balance against the income of nutrition. Gradual loss of strength reaches its climax, and results in the March crop of neurasthenics, the Feast of Chorea, Dance of St. Vitus.

Do not put the subject from you with the thought that this story of the overworked and under-nourished growing girl belongs to a big city, to the tenements and to ignorance. Would it were limited to them, for they are most teachable and quick to reform. If you look to your choicest families you will often find them getting up late, that breakfast is late, that the father rubs his swollen eyes, and scolds between his morning paper and his coffee because of this disagreeable rush and haste. His last night's nerves are disturbed by his child's early morning start. You will agree with me that in many of your most intelligent families the child's life and duties

are not the first consideration of the parents. The child begins its strenuous life in unsympathetic surroundings, gets up a high degree of momentum in the midst of inertia. Only in Wall Street will nerves again be found so thoroughly atingle.

I have no patience with the parent who says in word or action "I will not put myself out for my child. My parents did not, and here am I. My comfort has been earned; I intend to take it."

The child's morning meal should be taken in pleasant surroundings, in cheery atmosphere. It should not be the scold hour, the clearing house of yesterday's grudges nor the dumping ground of ill humor. The child should have time to eat, time for reasonable preparation for school, and be sent off happy. It will pay the parent to do so. It will save the doctor's bill and save anxiety. It is an investment for the parent's future which not even the Equitable Life or Standard Oil can give. It pays immediately something, and promises sure paid-up investments in the near future.

DR. L. C. AGER expressed himself as coming to the meeting with the expectation of hearing an arraignment of our present methods of public school instruction. Instead of that the reader of the paper seemed to be in entire agreement with those instructors who claim that the primary fault is with the home. That, the speaker said, is after all where we have got any vital improvement in present conditions. Dr. Northrup had described the typical overworked school child—the girl particularly—and when he came to point out the actual fault, it was not the work of the school that made the trouble, but the mental strain, the worry. We have got to begin with the parents, Dr. Ager said, and have the parents teach the children how to perform their work—how to make the best of their school work, and that, of course, could only be accomplished by very long and persevering effort on our part. There is no doubt but that many children in schools are overworked. It was not the actual work that they had to do, but the work that they attempted in trying to keep up with some other children who were perhaps a little better endowed mentally than they. It is the worry and competition that really is at the root of the trouble. He wished that Dr. Gulick's suggestion, that there should be some concrete resolutions made, would be carried out, and that there would be some effort to bring these suggestions before the public individually, that is the parents, in order that they may realize what their duty is and how they



should co-operate with the Board of Education in this matter.

MR. W. L. FELTER, Principal, Girls' High School, said that he wished first of all to express his undoubted pleasure in listening to a paper touching upon school life and lacking in any note of condemnation of Boards of Education and school boards and school teachers. It was a welcome, agreeable and hopeful sign, and showed that the pedagogue and the doctor are getting together, and when they do something is likely to happen. He wished also to say that his friend, Dr. Gulick, in the short time in which he had been in his present position, had already accomplished wonders in the upbuilding of the physical condition of the pupils in our public schools, and if his suggestions were endorsed by the members of the County Society and seconded by the Board of Education, the problem would be largely solved in the next decade.

We need first of all, the speaker said, an intelligent public opinion that will find expression in a right action of our Board of Estimate and Apportionment, a Board which holds the purse strings of the city. Dr. Northrup, in his excellent paper, commended the visits of physicians to the public schools and their examination of the eyes and ears and their giving of suggestions for treatment, so that the last stage might not be worse than the first. Those of you, Mr. Felter said, who follow the reports in our public press will recall that when the Board of Estimate and Apportionment had the last requests from the Board of Education before it, the item was put in: so many thousands of dollars for medical inspection. The Comptroller objected to it on the ground that it was of doubtful public expediency, and he doubted if the Board of Education should subject any children to an examination by a physician other than the one employed by the family. This was a step backward. He knew from personal experience of the valuable work which has been done by these medical inspectors, and he trusted that this body would make its voice heard in no uncertain note in approval of that portion at least of Dr. Northrup's report and recommendation, that this appropriation be restored.

The ambitions of the parents is one thing that must be kept in mind in considering this question. The speaker related a personal experience where he sent for a mother whose daughter was not cut out for high school work and suggested that it would be better if the daughter were put at some other line of intellectual activity, and she responded, "But I am determined to have one

lady in the family." That remark had its humorous aspect in view of the fact that the Creator never intended the daughter for a higher education, and she was struggling hopelessly with her lessons. There was another aspect, he said, which is very fine, because it showed the unmistakable value on the part of the parent for a higher education and of a determination she had formed to give her daughter every benefit that education could confer. We find such cases arising continually where the parent is struggling against the foreordination of the Creator, and cases of breakdown happen as a result. Mr. Felter observed that all the references during the evening had been to breakdowns of girls. He supposed breakdowns on the part of boys were as rare as cases of elephantiasis. Now we will immediately, he said, being representatives of the stronger sex, lay to our souls the flattering unction that this is due to the fact that men are endowed with a large modicum of common sense, and being prudent men and seeing the evil of over study, that boys do not over study, that they learn how to cross lots and dodge corners and get over the ground in some way or other; but the other side to it is that women are endowed with keener sensibilities and keener sense of honor, that they are going to do their work even if they break down under it, and the fact remains that the girls are the ones who break down under the strain; they are the ones who go first to the wall in the general struggle for a higher education.

After being requested to discuss this question the speaker made some inquiry concerning the pupils who go to one school in this borough, and had a long conversation with a teacher of physical training who does first term work. She told him that 5 per cent. of the grammar grade schools in this borough are unable to take up high school work, either because of anemic conditions or because of arrested physical or mental development. That is a very large proportion. He said he did not believe it was as large as that, told her to go on with her work for another week and see him again. She came back and confirmed her previous statement, that in her judgment, so far as her experience for three years was concerned, she thought 5 per cent. were unable to go on with the work. She said "That is not all; after the girls have been here three or four months, I notice how they go down under the struggle; that is when it tells; that is when they come to school nervous, pale and excited."

You have got to do what you can with public

opinion, Mr. Felter said. Before intellectual advancement there must be a sound physical condition, and without it a girl had better go home and never go to high school. It is better to have a sound mind and body than go to high school and break down under the strain. Moreover this public opinion should assert itself in the making of the school curriculum. He was perfectly frank in confessing, that so far as his studies of pedagogy were concerned, he had yet failed to study a science of education. You have a science of medicine, he said, you know that given a certain patient, a certain medicine, such and such a disease, this medicine will produce certain results. We have no such science in education; we do not know. We give the same medicine to the same class of children and the results are as varied as the stars in the firmament. We have no established mode of procedure, but we are searching for it happily and we may discover it; in the meantime the children suffer; they are the ones who are experimented upon. Now, then, we can protest against this to the extent of insisting on certain things. First of all, that the class will be of reasonable size. It is so common for us Americans to hold up our chins, throw out our chests and speak of our great and glorious country and its grand institutions. Shall I take you back, the speaker said, to the time of St. John the Evangelist, nineteen hundred years ago, and point to the school where he received his education, and find 25 pupils in a class. Visit the schools in this imperial city, and you will find 50, 55 and 62 pupils in a class, and we are in the imperial city of the greatest nation on earth. Now it is time there was a reform in these things. It is time the necessities of the children were considered as of prime importance. It rests as much with the doctor to bring it about as it does with the pedagogue, for when we say that the class must be smaller we are immediately met by the financial argument, that already our public education costs 25 per cent. of the tax budget. The speaker said he was ready to defend the thesis at any time, that the money invested for public education is the best investment that one manifestly can make, and it is the investment that brings the largest return upon the investment.

We need also to make over some pedagogues. The Board of Education prescribes that there shall be a recess of so many minutes. When the speaker was a superintendent visiting some schools, he found strange ways of enforcing it; he found a school where the principal interpreted

the rule this way; he dismissed ten minutes before twelve. The children were obliged to sit in crowded class rooms from 9 to 11.50, with little change in the recitation, because they were on the top floor and the problem of discipline seemed to be too great for that schoolmaster to handle.

When we have an aroused public sentiment, when parents are reasonably ambitious for their children, when Boards of Estimate are sufficiently generous and humane to give us classes of reasonable size, when grades of study are made with the sole purpose of benefiting the pupils, then we will have fewer cases of breakdown and we will have happier and brighter lives on the part of our girls particularly.

DR. LE GRAND KERR stated briefly that it seemed to him that this meeting had resolved itself partly into an arraignment of the family physician; or rather his lack of duty performance to the child. One speaker laid the blame at the door of the home; at the parents' feet; and that was right. Another had said that it was due to a lack of properly guided public opinion, and that was right. Now what constitutes public opinion, he inquired. Simply an aggregation of the opinions of the heads of homes, so that practically when we teach in the home, we teach public opinion. Now what class of all men, the speaker queried, comes in closer contact with the head of the home than the physician, if he is doing conscientious, good work; and especially the man who has the interest of the children at heart. Where the fault probably lies is in our lack of courage to stand out for what we know is right and for what we believe. That was illustrated by Dr. Gulick in speaking of the school where they were threatened with being compelled to close their doors because of the parents' objection to the home work.

No public educator should allow a parent to dictate to him after having given years of study to his work. No physician should allow a family, or the head of a family, to dictate to him on medical matters. When you get to the point that the head of the family can influence your opinions for the sake of a dollar, then it is time you cut that family influence out. We ought to stand for what we know is right, for what we believe is right. If we believe that the whole wrong is in the nutrition of the child, and believing that, we attend to the nose, look after the removal of adenoids, the correction of refractive errors and all those things that go to hold a child back, if we believe that, let us stand for it. Then it will not



be long before the heads of families will realize that they are not doing right by their children; it will not be long before public opinion will be decidedly changed in favor of a more intelligent education of the child life.

DR. W. P. NORTHRUP, in closing, said that his paper was especially adapted to New York, Manhattan and Brooklyn, and the crowded areas of all large cities. The question might present itself variously at different localities.

The problem in down town, East Side New York was something he was familiar with. It was the problem of making American citizens out of many thousand newcomers each year. You know, he said, the variety of which I speak. If the city of New York is to be parsimonious in its handing out of money to educate these exiles from tyranny, who are ignorant because they must be, and who are most capable of learning, he thought it the shortest-sighted policy that he had ever witnessed. It was a beautiful thing to him to see these people struggling for a public-school education. How little they asked from the commonwealth! They wanted to read and write, and yet we find 62 children in a class. He knew much about these people, and his heart was full when he talked about them and their grievances, and you see to-night, he said, what the public are willing to give them. The Comptroller says no, and explains that the people do not want their funds to go that way.

We have a function, as physicians and medical societies, and we have a pleasant duty, Dr. Northrup said, and that is to help in every way we can to sustain the Board of Education. These gentlemen had been good enough to say that his paper had been temperate. It was temperate because he knew what they were trying to do. We can help them, we can tell them how many hours a child between 8 and 13 years of age should sleep. How much do they sleep? They should sleep half the time at least, as an offhand start. They should have a certain number of hours of recreation. How can they go and live in the back alleys and dark rooms at night, go to school, without any hour for recreation, and be good citizens and be anything else but poor, emaciated people? England to-day is educating mental defects and guarding the development of her mill workers. She is looking after the health of little school workers and the young children. He thought it a very good thing for the community to look after the children and see them grow big. These children, if they live at all, will have tuberculous glands and days of suppuration.

They cannot grow big without the prime requisites of health, including recreation and rest.

The speaker begged the gentlemen to take some of the suggestions, made during the evening, to heart, to talk them over, and see if they could not form a commission, formulate rules and some concrete suggestion, whereby the Board of Education might help these children to continue living while they are getting an education. Give them a chance, he said. The doctor thought that it was the inherent privilege and right of every child that has come here or been born here to have a chance to live first of all and, second, get an education.

PAPER: A PLEA FOR EARLY OPERATIVE TREATMENT  
IN CARCINOMA OF THE STOMACH. BY  
GEORGE R. FOWLER, M.D.

#### *Discussion.*

DR. JOSEPH D. BRYANT, New York, said that he desired at the outset to thank the President and the reader of the paper and all parties concerned for courteously affording him the opportunity of being present on this occasion. There were many present, he said, whom he had known for years. There were, perhaps, many with whom he had more or less to do some years ago with their medical and surgical qualifications. Therefore he was disposed to speak on this occasion somewhat in the light of one who has seen much and heard much regarding the questions that were now before the Society.

There was little, indeed, to be said directly upon the statements which Dr. Fowler had made. It was difficult, indeed, for one to compress in so small a space so many trite truths as he had done in the speaker's opinion. There was little more that could be said except perhaps to emphasize in some ways the things which he had uttered, and finally to express a clear conviction as to the truths which he had stated. Dr. Bryant said that it seemed to him that this was not so much of a medical as a surgical night. He had been particularly struck with the fact that nearly every one who had spoken earnestly, had endeavored, and quite succeeded, in making an explorative incision into the Comptroller of the City of New York. He was decidedly impressed with the fact, too, that little effort had been made to make it other than septic in its character. He was disposed to feel that even cocaine had been ignored, as without the use of an anesthetic, it requires great moral courage for a man to withstand an operative process. He thought he might say, at the risk of digressing somewhat, that he, based

upon the statement just uttered, was inclined to approve of the technic for the purpose stated.

In speaking on the paper in question he said he would like to call attention to the fact that he believed, as Dr. Fowler had expressed himself, and as he thought every one present must concur, that an early diagnosis in malignant disease is absolutely essential for successful treatment. He did not know of any one who would presume to gainsay that statement, and he thought we should go further, and assure those who are afflicted, or their friends, that a much more successful outcome will result by this means. Now if this be so there is no argument that can be made as strong as the fact that prompt diagnosis is the most essential proposition in connection with the treatment of malignant disease.

The speaker said that he could look back a little way. He could remember when he was a medical student, that earnest discussions were entered into as to whether or not cancer was a local or general disease. Papers were read at that time as to whether or not cancer began and infected the system, or whether the system was first infected and cancer was the local result of the infection, and these different views were contested with considerable vigor. He could remember very well indeed when it seemed to be determined beyond gainsay, that cancer was a local disease, and almost invariably in connection with these discussions cancer of the breast was the object of comparison. Why? Because it made about one-third in the list of cancers occurring in the human race, and moreover it was one affecting the female sex, a sex prominent in all respects, so far as malignant disease was concerned.

He could remember well indeed when to remove a cancer of the breast promptly with one or two sweeps of the knife, was regarded as the ideal operation, indicating at all events a degree of expertness that many tried to emulate. He could remember perfectly well when the thought of removing infected glands in the axilla was not recognized. The breast was removed by a free incision, closed up and not including perhaps the entire gland itself, including only the growth. He added that possibly there were those present who might have witnessed these methods of practice.

Dr. Bryant could remember the next step in the proposition to the effect that operators would remove the glands from the axilla when they were determined to be enlarged, and over that step considerable contention occurred between those who approved and those opposed to it.

The next step was "I will not attack the axilla

because I did not feel any enlarged glands there." The speaker said he heard the expression occasionally now as a dim echo of the past. Now and then he saw it practiced by those who are older even than he himself. The opposition did not represent surgical advance, but rather surgical indifference.

The next question, and the one he thought which had more than anything else to do with radical treatment in cancerous disease was the recognition of the fact that lymphatic glands may become infected in many cases before any increase in their size is apparent. Certainly there is an increase in size, which can not be distinguished by manipulation. He himself had many times subjected to microscopical examination lymphatic glands of the axilla in cancer of the breast that were impossible to determine before operation, and found them involved with malignant disease.

Then came the great educational point of the need of prompt operation in the absence of the least manifestation of malignant disease in the axilla.

The next question that came up was the length of time one might suffer from a localized malignancy in the breast without malignancy appearing in the lymphatic glands, microscopic or otherwise. How long this may be no person can tell. It does not lie in the power of man to determine the degree of malignancy of disease or how soon after its inception secondary manifestations can occur. It is a part of the vital process. Cancers differ from each other as much as men or persons differ from each other. Some are very malignant, some not.

This being the case, and it being the general law regarding malignant disease, it seemed to him that there can be no gainsaying the fact that prompt determination of malignancy by explorative incision and early operation, followed by prompt re-operation in instances of return, hold out the only chance we have at our command to-day to increase the rate of percentage of operative cure. Now, if such be the case so far as the breast is concerned, which was, as he remarked a moment ago, one of the best examples for consideration, especially when we recollect that unoperated cancer of the breast will cause death in about forty-five months as an average, prompt action should be taken. He was speaking of old figures now, but they were as good, as far as non-operation was concerned, now as before and, by operation in old times, but twenty months were gained by operative practice.



If this be the case as far as the breast is related, how is it regarding the stomach? Let us compare them. In the first place, it is an established fact in connection with malignant disease that, the richer the organ is in lymphatics, the nearer to it of lymphatics, the more vigorous the function of the organ, and the greater the freedom of its movement, the more prolific it is in propagating the disease which affects it; perhaps it can be illustrated no better than comparing the tongue with the roof of the mouth; one immovable, the other freely movable—sometimes unfortunately so. Malignant disease attacking the tongue rapidly progresses, produces secondary deposits quickly, and if at all successful in operative relief it must be promptly attacked. So far as the hard palate is concerned, it too should be promptly attacked; still the rate of permanent recovery in a fixed place of this kind far exceeds that of the movable tongue. The lymphatics are rich in both, but the chief reason, in his judgment, rested in the fact that the roof of the mouth is fixed, moves but little indeed, while the tongue, of course, is very loose in many respects.

Now turn and compare, if you please, the breast with the stomach. There is a time in the history of the female breast when its functions are very active; as during lactation. They can not happen much more than once a year, nor does it recur in many instances very frequently; six or seven times is a liberal estimate. About three times a day the stomach performs its physiological functions, and every time it changes its relative position, and also every time one breathes. We will not multiply instances; the stomach, as has been described before, is laden with lymphatics and it likewise has great burdens to bear, and we have substantially, as has been said, on the greater curvature of the stomach a lymphatic girdle with numerous lymphatic vessels; he thought if they were counted they would amount to thirty or forty. We have ten or twelve lymphatic nodes on the greater curvature principally toward the pyloric portion. We have rather more on the lesser curvature and, as Dr. Fowler had said, they were so arranged, with reference to their reception of the lymph products from the stomach, as to make it possible to draw a vertically clean line of demarcation between the cardiac and the pyloric portion in malignant manifestations.

Let us stop a moment, he said, and see what operative difficulties we have of the stomach. In the breast these lymphatic glands are distributed,

in the cervical region, above and beneath the clavicle. It has been estimated that early in the history of this disease, whenever you have malignancy well marked in the axilla, in 6 or 7 per cent. of the cases the lymphatic glands will be found enlarged above the clavicle. Halstead has increased this percentage considerably by careful dissection of the tissues above the clavicle. They are easily removed. It is only by operating early that one can hope to forestall their malignance.

What differences have we so far as the stomach is concerned, as compared with the breast. In the first place cancer of the stomach is much more frequent than cancer of the breast. Cancer of the uterus is more frequent than cancer of the stomach; then comes the cancer of the breast. Frequency of cancer of the stomach, of course, may be estimated variously. Dr. Fowler had given some figures larger than those in his mind,  $21\frac{1}{2}$  per cent. in 30,000 cases of cancer estimated by Welch were cancer of the stomach. That is a prolific number.

Another interesting point is: Why is it difficult to operate successfully, or operate, we will say, on cancer of the stomach. There are two difficulties that are uppermost; first, extensive involvement of lymphatic glands, to say nothing of extensive involvement of the stomach by the cancer itself—that goes without saying. He was speaking more particularly of the lymphatic glands and consequent adhesions. You may have extensive adhesions without much lymphatic involvement; the reverse of this proposition may be true, but it is true that extensive adhesions and lymphatic involvement are often present is combating influences.

It is interesting to study the rate of mortality bearing on the question of the condition of the stomach. To quote again, the prognosis in cases of no operation, is 100 per cent. death. Nobody can gainsay that. In 1892, and in the presence of no adhesions 50 per cent. were successfully operated upon. He was not reciting this to tell what great success it was, but he was speaking of it particularly to show the importance of the complications as bearing on the operation—50 per cent. recovered in the presence of no adhesions. Sixty per cent. recovered in the presence of slight adhesions. In many adhesions 97 per cent. died, or to turn it around 50 per cent. died with no adhesions, 60 per cent. with slight adhesions and 97 per cent. with extensive adhesions. It is fair to say that 1892 is a long time ago in abdominal surgery. Later than this with no ad-

hesions 27.2 per cent. died, but with extensive adhesions 72.7 per cent. died. That is better, and so on from that time down to the present, down to the days of the Mayos, because they are doing greater work in abdominal surgery than any two men in the world. Mayo's (Wm.) last report, as he recollected it, was substantially as follows: Of the last 41 cases by Mayo's method (37 were cancers and 4 were ulcers), 13 recovered and one died, the last 11 recovered. Of 28 operated on by different methods 6 died, in the last 11 not one died. It seemed to the speaker that there are two things that it is wise to take in hand and adopt. First, remove malignant disease just as soon as possible and, second, employ the best technic. He was disposed to feel that the argument in favor of early explorative incision in cancer of the stomach as compared with cancer of the breast will be briefly stated as follows:

Cancer of the stomach is insidious. We may have carcinoma right in our midst. He might have one for aught he knew. Proof in the autopsy room demonstrates that persons die of cancer of the stomach without ever having symptoms of it. He stated that, he said, that to those who might have cancer and did not care to be bothered about it. On the other hand there are a large percentage of deaths, found on autopsy without being suspected as dependent on cancer. There is much danger in making an explorative incision. He had seen estimates to the effect that explorative incisions, as a rule, were attended with 2-per-cent. mortality, but he wanted to say that percentages and statistics have movable figures. You can depend upon them in a certain way, but they are not conclusive. They are evidence, but they are not proof. It is a difficult thing for a man, no matter how honest he may be, to accurately prove statements by statistics of his own collection.

Another statement he thought could not be gainsaid is, that when a cancer or tumor of the stomach can be felt, it is past operative relief. Yet how often we hear the internist say: "I cannot feel anything. If you can, let us see you find it." But that this is no proof no cancer is there has been demonstrated by autopsy. Early explorative incision is the only measure, and places the patient in a position to receive the entire benefits of operative practice now extended in operations on the breast. Sometimes you may meet a patient that may keep the fact to herself until the last moment and then ask you to express an opinion, requiring you to keep it to yourself, say-

ing: "If it is cancerous I do not want to know it," and that often happens.

Another thing in the diagnosis of cancer of the stomach, one must know the nature and extent of it, and that can only be done by making an explorative incision, in his judgment, at the earliest possible moment.

Cancer of the stomach is more frequent than cancer of the breast. The secondary dangers of cancer of the stomach are greater than those of the breast. The lymphatic glands are near at hand, the associations which they have to deeper tissues are more important than they are in the breast. You can dissect and open the wound well, examine easily in the latter, but to work in the peritoneal cavity, with all of its risks and its possibilities, and in the glands associated with the pancreas, etc., you will have a greater task and a more dangerous one than with the breast.

Operative dangers, of course, are greater in operations on the stomach than on the breast. They will always be, and it cannot be helped. He meant by that they will always be greater because of the difference in environment and of the tissues, etc., but they are not near so great to-day as they were only a very few years ago, and there was no question in his mind, whatever, that as advances are made in technic and early diagnosis, the rate of mortality of operation in the stomach in selected cases (because if you operate early you can select the cases) will not be much greater than the former operations on the breast. In any event the danger for operation on the stomach is sure to be greater because of the associations he had already mentioned.

And the suffering is greater. He had not been able in the brief thought he had given to it to find any good reason why early explorative incision is not a justifiable measure with a view of diagnosing the presence and extent of malignant disease of the stomach. He knew there were many excuses. He left this with the audience to conjecture, but at the same time he wished to emphasize the fact, that there is a broad difference between a reason and an excuse.

Dr. J. FUNS thinks that early explorative abdominal incision is justifiable in certain cases of suspected malignant disease of the stomach, in which a diagnosis cannot be made by other methods. This operation is as justifiable as the abdominal explorative incision, in cases where the diagnosis is well established, and it is necessary to determine whether a radical or only a palliative operation should be performed. In almost all cases, in which this explorative opera-



tion has been performed, a satisfactory diagnosis was arrived at. Though the justification of abdominal incision is unquestionable, the patients frequently fail to avail themselves of its advantages. The explanation of this failure must be sought in the teaching of former times, and also in the slight benefit formerly obtained from it. It will require time until the public will understand the great advances recently made in this branch of abdominal surgery, and become aware of the superior results obtained by it. The question why so few cases have been operated at an early stage of disease can be partially answered by the failure of patients to seek medical advice during its incipient period. The very insidious onset and the mild character of the subjective symptoms, at an early period of this disease, mask the serious character of this affection, so that the physician is consulted at a comparatively late period.

Though there is no doubt that all other diagnostic methods at times fail to determine the presence or absence of malignancy of the stomach, they have, at other times, proven to be of great value. It would be a mistake not to avail oneself of these methods, and it is of great importance to make every effort to perfect these diagnostic means to the highest possible degree. There is, after all, some risk to open the abdomen, but this slight risk should be taken in case other diagnostic methods fail.

DR. R. W. WESTBROOK said that the subject certainly required a good deal of missionary work. He only wished to emphasize the points which had been so well put by Dr. Fowler. It seemed to him, too, that any surgeon would differ from Dr. Fuhs as to the patient frequently refusing to permit these operations as recommended. It had been his own experience that the patient rarely objects when the matter is placed squarely before him, but that it is more often the medical man who retards the operative relief in these cases.

He could appreciate how the Mayos get their large number of well-selected cases. An average of a hundred cases a day of all kinds come into their offices, and experts carefully select those requiring operation, who are again passed upon by the Mayos themselves. There is no delay in medical wards. Very advanced cases are not subjected to operation. Cases of not extensive involvement in cancer of the stomach are treated by the method of partial resection.

The medical practitioner must not expect a radical operation to be done in cases where

marked cachexia is present. Here the surgeon would better do a gastro-enterostomy and not assume too great a risk. The speaker had operated on one case which lived for fifteen months, and he has a case now living two and a half years after gastro-enterostomy, where there was marked cancer present, although the latter case is now failing very rapidly.

He felt that we must all do our share in impressing the lesson upon the professional and lay mind that explorative incision is done not to confirm a diagnosis of early cancer, but to make it. If this were well kept in mind, it would not be long before we would be able to show far better results in the operative treatment of stomach cancer.

DR. G. R. FOWLER, in conclusion, said that he rather felicitated himself in bringing here from the Borough of Manhattan, our eloquent and esteemed friend, Dr. Bryant, and he also felt if his paper had no other result than to bring out the discussion that it had, and to call attention in the minds of those present, to the necessity for early and watchful care of so-called cases of chronic dyspepsia in individuals who are on the down-hill of life, there would have been something gained, at least, from this meeting.

He was very far from decrying the methods of diagnosis as employed by the physician at the present day. There is no question but that they constitute a very valuable addition to the scientific work and literature of our profession. His claim, however, is that, valuable as they may be in making a diagnosis of carcinoma of the stomach, they are not valuable at the time when the surgeon may hope to cure the case by an operative attack, and that is the point that he had endeavored to emphasize. It is true, as Dr. Fuhs said, that one should attempt to make the diagnosis by laboratory test and by physical examination, but in a case of persistent gastric disturbance, which, as Dr. Bristow had remarked, may be due to an antecedent ulcer, it was, in his judgment, and he thought this dictum will be enforced in the future, that an exploratory operation is the only means of clearing up satisfactorily the diagnosis, and laying the foundation for proper treatment.

The operative procedure need not be long. An incision long enough to admit the finger will suffice to commence with; if glands are undoubtedly involved in the carcinomatous infiltration, they are easily palpable. In fact, under an anesthetic, they can often be felt without opening the abdomen, after the patient is fully anes-

thetized and the reflex spasm of the rectus muscle on either side has been abolished. With the finger feeling around the pylorus, tracing its way up to the region of the gall bladder, then toward the median line, and about the celiac axis, where the glands are placed, which in the vast majority of cases receive the first infection from the lymphatic, the exploration can be rapidly made, and if these are found to be undoubtedly involved, the case is hopeless, so far as an attempt at radical cure is concerned. In the cases of carcinoma of the breast, the existence of infected axillary glands, to an extent to be palpable, does not necessarily make the case hopeless, because these can be extirpated, but glands right up in the direction of the spleen are not accessible for removal, and the fact that these are implicated demonstrates to the surgeon that he must close the abdomen at once. The operation need not necessarily take more than 15 minutes if exploratory incision is followed and, if burned silver wire sutures are used to close the wound in the abdominal wall, the patient can be out of bed in a few days. This is the practice that he has followed with satisfaction.

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## THE BROOKLYN GYNECOLOGICAL SOCIETY.

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STATED MEETING, NOVEMBER 3, 1905.

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A. A. HUSSEY, M.D., EDITOR.

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The President, J. O. POLAK, M.D., in the chair.

### ECTOPIC PREGNANCY, COMPLICATED BY DOUBLE INTRALIGAMENTARY CYST.

DR. A. M. JUDD reported an interesting case he had this summer of an ectopic pregnancy of two months history. When he opened the abdomen he found as a complication a double intraligamentous cyst. The physical examination previous to operation revealed what was thought to be a big mass of clotted blood behind the peritoneum lifting up the intestines. He found something that was considerably more difficult to remove when he got inside. There was nothing especially interesting about the history of the ectopic.

There was a considerable loss of blood. Each cyst held at least 16 ounces. The cyst on the right side was, after puncture and allowing escape of contents, stripped out after incising the anterior layer of the broad ligament. The left

could not be so removed, but was removed by a triangular incision with the base at the upper side of the broad ligament and stripping out portions of cyst wall remaining, tying vessels as they were cut.

### APPENDIX SURROUNDED BY OMENTAL ADHESIONS MISTAKEN FOR PYOSALPINX OF RIGHT SIDE.

DR. H. C. KEENAN related the history of a case that he had operated on last September. The woman came from Utica. She had been operated on six weeks before she came to Brooklyn. The day after she arrived here, he supposed, owing to the jolting of the train, she was seized with considerable pain in the lower part of the abdomen. When he saw her he made a vaginal examination and found a mass on the right side alongside the uterus. The history she gave was that the doctor had made an examination and said she had a pus tube or pus in the pelvis, and he opened it through the vagina and let out a considerable quantity of pus. The speaker made the same diagnosis that she probably had a pus tube that had been evacuated through the vagina, and filled up again and probably an appendix adherent. He operated on her the next day and found the ovaries and tubes perfectly normal. She had quite a long appendix, which was surrounded with omentum right alongside the uterus. There was no inflammation low down in the pelvis at all, absolutely none, but on vaginal examination there were the marks of an old scar where she had been punctured previously. The question in the speaker's mind, and which he tried to determine was where the pus came from that the doctor got there on the previous operation. She said she had been opened and drained for three or four weeks and pus came out right along. Everything was normal except the appendix, and it showed no signs of having been punctured or there being an abscess.

### Discussion.

DR. W. B. CHASE said that Dr. Keenan's case suggested one which came under his observation eight or ten years ago. The trouble began six weeks before he saw the patient, and he raised the question at that time as to the etiology of the pus accumulation. This was the case of a woman about 40 years old. When she came under his care she had been sick some time with considerable fever. There was a large mass filling in Douglass cul-de-sac. It was a question whether that was pus or the breaking down of a blood clot; in fact he was not quite certain whether the thing was walled off or not. He aspirated the



case thoroughly and it contained a pint of pus, and that was the end of it. He expected it to fill up in a week or ten days, but she never had any further accumulation.

DR. J. O. POLAK suggested that Dr. Keenan's case showed the recuperative powers of nature.

#### ACCIDENTAL HEMORRHAGE.

DR. JEWETT reported a case of accidental hemorrhage. The woman was a young primipara—most of these cases occur in multiparæ. She was very œdematous, and the urine turned nearly solid on boiling, that is, she had both acute nephritis, the result of toxæmia of pregnancy, and accidental hemorrhage. She had entered upon the eighth month of gestation.

At his examination twelve days ago she was very pale and exhausted, had suffered intense pain, the abdomen was extremely sensitive, very much distended, tense and hard. The child apparently was dead. The diagnosis had been made by the attending physician. The condition was bad for operative interference, but there was nothing to do but to evacuate the uterus. The internal os was effaced and the external os barely admitted one finger. Dilatation was begun with the Goodell and the Gau dilator and continued with the hand. Delivery was completed by version within fifteen minutes with apparently no laceration of the cervix. The child had evidently been dead for some hours. The uterus contained a large quantity of clotted blood, yet no blood appeared till extraction was begun. The woman made a slow recovery, but is now out of danger. The urine was almost suppressed; it picked up very slowly and three or four days after labor had become normal. There was no convulsion. Examination of the placenta showed that it had been detached over two-thirds of its extent by the rectoplacental blood clot.

#### ABSCESS OF THE OVARY.

DR. C. JEWETT related another case that he said might bear upon the subject of Dr. MacNaughton's paper, although of no interest except that it was an illustration of pus in the pelvis. It was a case operated upon a week ago. He found everything glued together, and there was an abscess in the right ovary. The adhesions on the latter side were comparatively recent. On the other side there was a cyst of the ovary containing thin cloudy fluid, and here adhesions were old and firm. There was but very little rise of temperature at the time of operation. He, therefore, closed the abdomen completely and the pa-

tient had recovered with practically no fever. The pus was of course sterile.

#### Discussion.

DR. J. O. POLAK stated that he had noted three cases of hemorrhages into cysts. Each patient prior to operation had albumen, which cleared up promptly on removal of the tumors. He did not know whether it was an accident or not, having had three in succession, or whether there was a causal relation between the hemorrhage and albumen.

DR. C. JEWETT answered that in the obstetric case the nephritis was a possible cause of the accidental hemorrhage. That is one of the assigned causes of accidental hemorrhage. The etiology is not very well defined.

Paper: PUS IN THE PELVIS. By DR. GEORGE MACNAUGHTON.

#### Discussion.

DR. C. JEWETT said that the first point that attracted his attention was the statement that pelvic pain is always an evidence of peritonitis, yet there may be vicious pain in the ovary or tube or uterine pain, without peritonitis.

The doctor stated that the urethra is the point in which gonorrheal infection is most prone to linger. He thought the chronic manifestations of gonorrhea were often more pronounced in the cervix than in the urethra. Speaking of the origin of these inflammations it may be noted that they sometimes arise from recrudescence of an old gonorrhea, provoked by traumatism. This may happen from the use of a sound or other instrument in the uterus. Again, we know that an old gonorrhea often lights up after labor. Cases of one child-sterility are thus explained. After labor or abortion in gonorrheal women the tubes may become sealed by upward extension of an infection which had not before reached the tubes.

With reference to the action of different organisms, no special distinction has been made in the paper. It is rare that gonorrhea produces peritonitis except when complicated with other organisms. As a rule gonorrheal infection in the pelvis tends to localize itself. This is true in great measure, too, of staphylococcus infection. While the gonococcus is the most common cause of pelvic infection, especially in the tubes, the most formidable is the streptococcus. This, if time permits, always leads to suppuration. Any of these organisms may travel along the mucosa, but the streptococcus usually spreads by the lymphatics. A peritonitis is rarely dangerous to

life till it rises above the pelvic brim and streptococcus inflammation is most prone to spread. The other infections have little tendency to spread. It must be remembered that it is not suppuration but toxic absorption that kills, and this occurs especially in streptococcic infection.

The subject is a large one and would admit of much more discussion than time permits.

With reference to treatment the rule is well established that virulent infections be drained from below. If further measures are required they may be carried out later. Old infections, as a general rule, are best attacked from above.

DR. H. C. KEENAN agreed with what Dr. Jewett had said about the difference in the modes of infection with the gonorrheal organism, the streptococcus and staphylococcus. He thought, in taking up this subject, it a very difficult thing to lump all the cases together as pelvic abscesses. If we merely examine these cases by vagina, and on finding that there is an abscess in the pelvis make it our whole point of treatment, that it shall be opened from the vagina, we are liable to grave mistakes, not only in the immediate result, but also in the ultimate result. He believed that if we find the etiology and operate according to the etiology rather than the exact anatomical findings, we will be more nearly correct. As the reader of the paper has shown, an abscess may be of puerperal or gonorrheal origin or traumatic, the latter probably being streptococcic in origin, or an abscess may originate from the appendix. Now, opening an appendical abscess through the vagina, if the pus has formed so low, may be a very good procedure, but he did not think that an appendix could be taken care of at the time that the abscess was opened. He thought that it would give cause for further trouble.

As far as abscesses due to the staphylococcus are concerned, he thought that they might be opened through the vagina. We have in the etiology a pretty fair method of telling whether a staphylococcus, streptococcus or gonococcus is at work. If we get a history of instrumentation, of labor or abortion, it is probably due to one of these germs, and the abscesses may be opened and the chances of nature curing the pelvic organs are very good.

On the other hand in the gonococcus, as he showed in his paper some months ago, the chances of the patient's recovering are very good; likewise the virulence of the pus is exceedingly different, according to the nature of the microbic cause. If we open a gonorrheal ab-

cess through the abdomen and the pus gets over the peritoneum, there seems to be very little liability of general peritonitis, so he thought that to treat all cases as pelvic abscesses and not look a little further would be an incorrect method.

DR. V. L. ZIMMERMANN was inclined to take issue with Dr. Keenan in opening gonorrheal abscesses through the abdomen. He believed if we are sure there is a large collection of pus in the pelvis, it should be opened per vaginam, and he did not think you can always judge from the history as to the microbic origin of the collection of pus. He believed that it is usually necessary to do a laparotomy some time later, possibly six months to a year, because those patients who have had pus tubes and had them opened below, usually have pain until the remains of the tubes are removed.

DR. A. M. JUDD said that he understood Dr. Jewett to say that the streptococcus was the most frequent cause of infection. In his experience the first in frequency is the gonococcus, second the staphylococcus, and third the streptococcus.

He agreed with Dr. Zimmermann in disagreeing with Dr. Keenan in regard to the method of procedure in these cases in effecting a cure. He thought they should all be opened from below, and if a secondary operation is necessary, to do it without the added danger, that would have accompanied a primary laparotomy, and he thought that Dr. Keenan would save more cases if he followed that plan out.

Typhoid fever in connection with pus in the pelvis had not been mentioned, the speaker said. He had seen in the last two years two cases treated for typhoid fever, one for two weeks and the other for nine days, in which the cause of the fever was pus in the pelvis. He opened them both from below. One case the day of operation had a temperature of 106 degrees, and the opening of the pelvic abscess caused a cessation of the temperature to nearly normal and an improvement in all the symptoms. He thought that many of these cases treated as typhoid fever, were, from the distinctive character of the pus obtained, undoubtedly appendical in origin. Many pus collections remain in the pelvis, he said, and are not discovered for many years after its initiation, and other cases are fortunate enough to have the pus discovered and removed.

A widening experience teaches one that each year he finds that he will make more (in proportion) posterior vaginal sections for the evacuation of pus cavities.

DR. W. P. POOL said that it seemed to him



there can be no hard and fast rule applied to an operation for pus in the pelvis. A recent experience of his bore out Dr. Zimmermann's contention that we must not regard the anatomical findings in these cases. He thought it is our experience frequently to find tubes, the seat of abscess containing perhaps a considerable quantity of pus, which are not particularly adherent to the tissues surrounding them, which are comparatively movable, and which it is perfectly possible to take out by abdominal incision without soiling the peritoneum, removing the entire trouble, while if such a condition is attacked from below the peritoneum must be more or less soiled.

This is the case of which he spoke. Having gone in through the vagina he found that the tube was free, although the seat of an abscess about the size of a Frankfurter sausage. He made an incision in the tube and evacuated the pus. It set up considerable pelvic inflammation, from which the patient made a slow recovery. At a subsequent operation which was necessary, it was found that adhesions had formed about the tube and throughout the pelvis, which made the operation more difficult. The patient's condition was very serious on several occasions, whereas he believed if the operation had been done by the abdominal route in the beginning this might have been avoided.

It is certainly true whatever the etiology of these infections may be, that in a great many cases of chronic pus tubes we find no infection whatever; that soiling the peritoneum can be done with comparative immunity, whether it has been of streptococcus, staphylococcus or gonorrheal origin, such cases having existed for months or years.

DR. W. B. CHASE said that the reader of the paper had described a number of different conditions under one heading, and that gave a good deal of latitude in the discussion. It makes some difference whether we start with the etiological or clinical aspect of the case, and it makes equal difference whether cases are chronic or acute as regards the question of opening from below or above.

There is a field for opening abscesses through the vagina. He thought in cases of inflammation of the pelvic cavity following abortion or labor, where the patient was seriously ill, if we find pus there it would require a good deal of courage to enter the peritoneal cavity from above. When fluctuation can be felt there, as in these acute cases, if we open the peritoneal cavity, we may

disseminate the infection and put the patient in greater jeopardy.

There are cases of acute salpingitis of a condition of virulence that makes the patient very ill, and if we were uninformed of the cause of the infection we might hesitate as to which method we would take, because if a recent infection the end of the patient might be worse than the first.

There is another condition in which we are in doubt whether the fluctuation in the pelvis is due to pus or blood clot breaking down, an old hematocele or a tubal pregnancy which has ruptured into the broad ligament. When these cases go on to suppuration he thought there we would be reluctant in attacking them from above.

The speaker could hardly conceive that we would have occasion to open an abscess due to appendicitis through the vagina, and yet that thing might happen. Two months ago he saw an appendix, which appeared in an inguinal hernia, so that the hernia was made up entirely of the appendix and cæcum.

By a careful study of individual cases, Dr. Chase said, we will be able to reach a conclusion, which will reveal the more conservative method. When we drain from below whether pus is in the tube or walled off, we may get a cure and we may have to operate later on. The lives of many patients have been saved in acute conditions by evacuating an abscess from below, and then afterward meeting the indication by an abdominal opening, if required. The other cases require careful study, and our method of attack and procedure will depend entirely on the question of diagnosis and the form and method of infection, as far as that can be ascertained.

DR. CARROLL CHASE said that a leucocyte count might differentiate pus from blood clot in the pelvis, and also make diagnosis possible between typhoid fever and pus in the pelvis, should such an unusual question arise. A careful study of an accurate temperature chart will tell a good deal, the temperature in conditions in which pus is present usually being irregular, while in typhoid, and certain other conditions, it is more or less definitely regular.

DR. J. C. MACEVITT said that he found, as a rule, that where we have pus in the pelvis, where it can be felt and is subperitoneal, that it is due to staphylococcus or streptococcus infection as a result of labor, abortion or instrumentation. In cases of the kind where you can detect fluctuation, he thought it is advisable to open through the cul-de-sac or in the inguinal region. There are many

cases where there are different foci of infection due to the lymphatics, into which the pus cavities unite and present in the inguinal region, as well as in the lower pelvis. In such cases it is well to attack through the inguinal region without entering the peritoneum cavity. The folds of the broad ligament and peritoneum are elevated by this constantly increasing formation of pus, and it is an easy matter to make your incision almost parallel to Poupart's ligament and enter the pus cavity.

In all cases of acute gonorrheal infection, where there is an active inflammatory condition, he thought it advisable to attack through the pelvis, but where there is a history of six months or longer, by all means choose the abdominal cavity, for the reason that it does away with the necessity for a future operation, and you completely eradicate the source of the trouble, and the complication, caused by the infection. It is easiest to operate through the vagina; with your finger enter the tubes, irrigate and wash out the pus, but the adhesions still remain, and it means a long convalescence and sometimes a secondary operation.

This was very forcibly demonstrated to him last Saturday. He operated at St. Mary's Maternity Hospital on what he first supposed to be a pelvic abscess. He elected the abdominal route. It was interesting in the fact that the two pus tubes were removed intact filled with pus. There was a large cystic ovary the size of an orange on one side, and on the other the ovary was adherent to the tube and cystic as well. Besides the appendix, which was about six inches in length was attached to the ovary on the left side. In a case of that kind, how could he accomplish a cure in operating through the cul-de-sac? In a case like this where we have a long-standing infection, it is not only justifiable in operating through the abdominal cavity, but obligatory. In a paper presented by Dr. Keenan a short time ago, the mortality in these cases, operated at St. Mary's Hospital, was something like 2 per cent.

DR. C. JEWETT said he hoped the statement that the colon bacillus was a prominent cause of pus in the pelvis would not go unchallenged. It is very doubtful if suppurative pelvic peritonitis is produced by the colon bacillus alone. What we get from the colon bacillus is adhesive peritonitis, but not pus. Uncomplicated infection by this organism results in little exudate of lymph or serum, seldom or never pus, and very moderate, if any toxæmia. Nor is the *origin* of tubal or ovarian disease to be referred to the bacillus

coli, even though that organism be found in the pus.

DR. A. M. JUDD stated that Stimson took up the subject of colon bacillus infection some years ago. He had a number of cases of death due to peritonitis. His investigations showed that the cause of the peritonitis, which was of a low grade, was the bacillus coli communis.

DR. W. E. BUTLER said that this subject had been discussed pretty thoroughly a number of times in the Society, that the original infection caused a peritonitis and adhesions of the parts to the intestine, and after that occurred we had a migration of the colon bacillus. That was not the primary cause. The colon bacillus is found very rarely in pure culture; it is always found in connection with other organisms, particularly the staphylococcus. First an infection through the tubes by the staphylococcus or through the lymphatics by the streptococcus, then adhesion to the intestine, and then a migration of the colon bacillus, but always in conjunction with other organisms.

DR. J. O. POLAK thought the members had been a little unfair to Dr. MacNaughton, because they had confused some of his statements. We all agree that acute puerperal infections, which cause pus collections in the pelvis are best treated by the vaginal route, and that the acute exacerbation of a gonorrheal infection causing pelvic peritonitis with pelvic abscess, is also best treated by this route, but in chronic cases in which the abscess is found as a tubal or tubo-ovarian abscess, whether it be post-partum, post-operative or gonorrheal, such a case is better treated by the abdominal route. The question divides itself into the treatment of abscesses in the pelvis in acute cases, or acute exacerbations of chronic cases or chronic cases.

Regarding the etiology he did not think there is any question that the majority of these cases are due to the gonococcus, and in these we usually have an infection that isolates itself in the tube, with more or less adhesive peritonitis, and it is one that quiets down if left to itself, in other words outlives its virulence. If mixed with the staphylococcus from instrumentation, from arrested or disturbed menstruation or abortion or the introduction of anything that brings the staphylococcus or streptococcus, we have a pelvic abscess as a complication.

The colon bacillus cannot produce by itself a peritonitis.

Regarding the blood count in the diagnosis of pus cases. It is worthless in chronic cases; it is



worthless in differentiating between pus and blood in cases without temperature or other clinical signs of differentiation. It is of use during the acute stage of an acute case. After the pus has been isolated in the tube by the lymph, the blood count again becomes practically worthless. On the other hand, during the acute stage of an infection the differential count is of particular value.

DR. ZIMMERMANN had brought up the question of the election of tube over gauze drainage. He had used both, and had come to the conclusion that gauze drainage, if used after the manner of Pryor, *i.e.*, placing a number of rolls of gauze behind the uterus, so that we have a wide vaginal opening and spreading the gauze out in the abscess cavity behind the uterus, which isolates the uterus, when the trouble is not completely localized, that in that way we get absolute drainage. It is his habit to leave the gauze in eight or ten days and draw out on the fifth or sixth day the middle roll of gauze. We do not need to reintroduce gauze, and the patient makes an uninterrupted recovery, as far as his personal experience has been.

DR. G. MACNAUGHTON concluded the discussion by saying that in the matter of pain he referred to inflammatory troubles in the pelvis more particularly, not cystic degenerations of the ovary, etc. Of course, acute pain may occur in these conditions and periodically recur, but in inflammatory diseases of the pelvis he believed pain is due to the accompanying peritonitis.

In regard to the invasion of the gonococcus first in the urethra he believed that statement is true, and he believes it remains longest at that particular point. That is a matter of some observation, and he was inclined to think that there are some authorities who agree with him.

The speaker said he had no expectation of going up from the vagina through a clean peritoneum to reach a floating pus tube. That, of course, would be the height of folly, but he meant a pus collection that can be reached through the vagina, and he should not wait for fluctuation pockets. There are any quantity of these cases that are enclosed in a very thick pus wall, sometimes a quarter of an inch thick, and you have to go through that mass before reaching the pus. These cases do very well—most of them get well. He has drained ovarian abscesses where they did not reach down into the pouch in that way that have done very well.

As to the appendix causing pelvic abscesses, he thought that is not an infrequent cause. He

had seen quite a number of them, and the case that was related by Dr. Keenan was a very instructive one—that evidently was not due to any tubal disease whatever. The probabilities are that the cause of that pelvic abscess was in the appendix. He had seen some of these cases operated on afterward and found that the appendix was a primary cause, and he had operated on quite a number that have not subsequently required an abdominal operation and have remained perfectly well since. Dr. MacNaughton believed in considering the presence of pus in the pelvis, that it is always well to remember the appendix and very often it is possible to single out the appendix as the cause of the trouble.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, NOVEMBER 2, 1905.

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The President, T. B. SPENCE, M.D., in the Chair.

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### NECROSIS OF TIBIA.

DR. J. M. DOWNEY presented a female patient aged 14, who came to him November 26, 1904, complaining of a pain along the tibia due to syphilitic osteomyelitis. The leg was swollen and tender and her temperature was 102 degrees. December 10th he made an incision, exposed the periosteum and found some slight necrosis. The bone was curetted. April 28th he again operated and removed a sequestrum which measured four inches in length; in thickness it comprised the entire diameter of the bone, nothing being left but the posterior part of the periosteum. There is some necrosis now at the ankle and near the knee. The cavity filled up in a remarkably short time. She has been receiving constitutional treatment during the period she has been under observation.

### PROLAPSE OF THE RECTUM.

DR. J. M. DOWNEY said that in reporting this case of prolapse of the rectum, his idea was to call attention to the Tuttle operation. This method is applicable to all prolapses of the rectum beginning below the recto-sigmoid juncture, that is, the first and second degrees of complete prolapse.

The patient, a female child, five years old, was operated upon by the speaker January 30th. The usual incision between the anus and coccyx was made and extended to the tissues between

the rectum and sacrum; the rectum was separated from the sacrum for about six inches, the length of the protruding gut. The sacral tissues were gently curetted to freshen surfaces for union with gut. The rectum was invaginated through the semicircular incision and drawn down as far as possible. The external posterior surface of the gut was rubbed with gauze sponges, five long silkworm gut sutures were passed through the muscular wall of the gut, each suture taking a good-sized bite about one inch apart. The ends of the sutures were carried up through the wound after the Tuttle method on each side of the sacrum. A buried chromo-sized gut suture was passed around the rectum at the upper margin of the external sphincter with a moderate amount of constriction. The semi-circular incision was closed so as to bring the ends of the recto-coccygei and external sphincter muscles together. The patient made an uneventful recovery.

The last examination of the rectum, which was made October 8th, nine months after the operation showed no return. Recently Dr. Downey has operated upon another case after the same method, but it is of such late date that he thought better to report it later.

#### THE MEDICAL SIDE OF SURGERY.

DR. WILLIAM S. HUBBARD read a paper with the above title, for which see page 17.

#### *Discussion.*

DR. J. D. SULLIVAN thought the paper opportune, and that probably some of our eminent surgeons might not; but he believed there was room for consideration of the subject. The point that the speaker would make particularly is that surgeons, as rule, and surgical text-books, pay more attention to the pathology of surgical disease and the technic of operation than they do to the patient. Here is a point in which the physical and dynamic condition of the patient should be taken into account in relation to the operation just as much as the procedure itself; *e. g.*, the condition of the blood, the condition of leucocytosis or phagocytosis, the alkalinity of the blood and how near the blood is to the normal state. He thought these are points that should be brought in, and it is possible an operation might be averted, postponed or possibly made safer by taking these matters into consideration before the operation. The condition of the patient and not the surgical disease alone should be studied in all cases.

DR. H. B. DELATOUR judged from the silence

of the gentlemen that most of those present felt in sympathy and in accord with the paper as presented. He did not think there was any room for question, that for a man to practice surgery, it was equally requisite that he should know some medicine as well as to be versed in surgery. We all see to-day the younger men as they are leaving the hospitals and starting in practice striving for a surgical career. It seems to them to be the brightest career. Those who have been in practice for a number of years, while they hear surgeons spoken of in the highest terms, hear the family practitioner spoken of in equally high terms, and there can be no question that the medical practitioner is just as useful to the public at large as the surgeon. For a man to practice surgery with success and with justice to his patient, it is necessary that he should have some medical training and experience. For a man to branch out into the full-fledged practice of surgery without any previous family practice or a good hospital experience on the medical side, he thought entirely wrong.

Again, a man who is practising medicine and posing as a medical practitioner and consultant should equally be versed in the possibilities of surgery. We will hear men make the statement that they have never seen a case of appendicitis that required operation, that they have treated numbers of cases of appendicitis and never lost a case, and they have never had a case operated on. Now, if a man knows anything about these cases, if he will go to the hospitals and see these cases operated on, he will soon change his mind, because he has had demonstrated to him the actual conditions that take place; therefore, Dr. Delatour believed it just as necessary that the medical man should be versed in the possibilities of surgery and what can be done in surgery, as it is absolutely necessary that the surgeon should be versed in medicine and be able to make his differential diagnosis between a truly medical condition and a surgical condition.

DR. W. C. WOOD said that most of us could plead guilty to the statements made in the paper. He knew he, for one, could do so. He believed we could all agree with the last speaker in regard to the wisdom of a medical experience to one who expects to do surgery, in fact he would go still further than the author in one particular. Assuming that a man's time is mainly devoted to the actual practice of surgical work, and that his intimate knowledge of medical cases has ceased ten years or so previously, there are a great many things in medicine with which he is now un-



acquainted that have come to the front and that are especially important since the days when he was doing an active medical practice. He thought one fault of surgeons to-day is that they do not continue to study that branch of medicine which is of great importance in their work—medical diagnosis. There had been published in this town, within the past few years, a book on the "Diagnostics of Internal Medicine," which, it seemed to him more important for the surgeon to know than many of the latest works on surgery itself.

There are some places where the profession in this town to-day lean too far, he believed, to conservatism. He would speak only of one line of case—the treatment of fractures. Active, energetic, positive and perfect reduction of fractures is not carried out with the enthusiasm and care, by the profession as a whole, that the condition warrants and that modern surgical principles teach. While he believed sometimes we are too bold, he thought, on the other hand, we are often too conservative, and surgeons even in the practice of surgery to-day, more especially along the one branch which he had mentioned, are erring too far on the side of unwise conservatism.

#### LYMPHEDEMA FOLLOWING REMOVAL OF LYMPH NODES OF GROIN.

DR. W. L. DUFFIELD reported the case of a man, 30 years of age, civil engineer by occupation, who was admitted to St. John's Hospital August 13, 1905. Four weeks prior to admission he burned the dorsum of his left foot on a hot pipe on an automobile. This was followed by a blister which refused to heal. Three weeks later he noticed a painful lump in the left groin, which proved to be a suppurating gland, though not broken down.

On the day prior to admission the foot was thoroughly cleansed and put up in a wet bichloride dressing. The wound was apparently perfectly clean; in fact only a very small raw area over the base of the great toe was to be seen. On the following day the inguinal glands were dissected out without rupturing them, and the wound was closed. The foot was again inspected, the raw area curetted with a gauze sponge and dressed. Two days later the patient had a rise of temperature, the wound was very much inflamed and all the lymph channels of the leg and thigh injected. The wound was opened and dressed daily until August 26th when he was discharged from the hospital with a clean granulating wound.

One week later the patient was taken with a severe chill lasting most of the night, and when

seen the next morning the thigh was swollen, of brawny hardness and brownish in color, extending from the patella to Poupart's ligament and almost entirely around its circumference. Daily dressings of hot antiphlogistine were used with some relief, and it was noticed that the hardness and induration of the thigh decreased in proportion to the amount of a thin, limpid, straw colored fluid, that was discharged from the lower angle of the wound at about the site one would expect the severed lymph vessels to be after the removal of the glands. The recovery was uneventful from this on, the wound healing, and a slight amount of induration only remaining about the middle of the inner surface of the thigh.

(To be Continued.)

In the *British Medical Journal*, Dec. 2, 1904, Arthur E. Barker, F.R.C.S., Prof. of Surgery, University College, London, published a second paper on beta-eucain and adrenalin in infiltration anesthesia. The technic is that previously described; but he has modified his solution to the following: Distilled water,  $3\frac{1}{2}$  ozs.; beta-eucain, 3 grains; sodium chloride, 12 grains; 1:1,000 adrenalin solution, 10 minims. The whole quantity can be used in an ordinary case, if necessary, and is quite sufficient for most. But he has often injected twice as much when large areas had to be dealt with, and never saw ill results from 6 grains beta-eucain and 20 minims adrenalin. The sodium chloride renders the solution isotonic with the blood, preventing pain from the injection. The adrenalin enhances the duration of the anesthesia; eucain alone anesthetizes only for about 15 minutes, while the combination produces an anesthesia lasting 3 or 4 hours. But it is more slowly produced when adrenalin is also used; and it is therefore well to wait some 30 minutes after injection before all larger operations, to allow insensibility to develop fully.

Barker never saw any depressing effects follow, although in several exceptional cases up to 6 grains eucain were injected. To judge from the reports of those who use cocaine for local analgesia, the contrary is the case, and they recommend the subcutaneous injection of strychnin, the use of camphor and other stimulants during operation. They also insist that the patient should be kept quietly in a horizontal position for some hours after operation. With eucain, Barker's patients have taken no harm from walking away from his house, even when it was used freely; and in the hospital no after-treatment was necessary.

## Brooklyn Medical Journal.

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BROOKLYN-NEW YORK, JANUARY, 1906.

### THE STATE HOSPITAL AT FLATBUSH.

Conditions are favoring the probabilities of an early renovating of the Long Island State Hospital for the Insane at Flatbush. This institution was for the first fifty years of its existence the Kings County Insane Asylum. Latterly it has been under State control, though still receiving a large part of the insane patients from this borough.

The most important reason for the continued maintenance of this institution in its present locality is that it furnishes a receiving hospital for the insane within easy reach. This is desirable especially in the cases of injured or sick insane patients. It is likewise desirable in the cases of certain of the very poor who desire to have a member of their family who is adjudged insane committed to an institution where he can be easily reached without the entailment of traveling expenses.

Since it has been decided to maintain this institution it is necessary that it shall conform to a modern model in regard to plumbing, ventilation, abundant sunlight, and in equipment with later-day methods of treatment with baths and electrical devices. This it is now proposed to accomplish; not by an entire demolition of the old building, but by remodeling and by the addition of floor space, and perhaps the addition of two or more buildings for the housing and residence of the Superintendent and assistant officers. It is to the credit of the original designers and builders that this institution, which now houses some 1,200 patients, lends itself even to

some extent to capabilities of remodeling. It is believed that the outside walls which are exceptionally heavy and firm can be used without any alteration. Interior partition walls will be torn down so that where there are now small separate rooms large pavilions will be created, which will be better ventilated and better fitted to improve the welfare of the patients, besides furnishing considerable greater floor and air spaces.

Some thirty acres in title of the institution are likewise taken over by the State. A large part of the former will still be utilized to provide employment in gardening and other crafts to the able-bodied patients, who will be likely to be benefited thereby. It is perhaps well that the decision, to maintain the old institution, for the reasons given above, has been reached. Its accessibility to the medical profession of the borough is a consideration also not without advantages to the patients as well as to the students of mental ailments.

The plans seem to have been carefully prepared by the Superintendent; they are admittedly urgently needed, and, since it has been decided to maintain them, Representatives of this borough in the State Legislature should exert themselves to secure the necessary renovation.

### MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. John J. Wagner has removed to 28 Seventh Avenue, formerly the residence of the late Dr. George Wackerhagen.

Dr. Lewis N. Foote has returned to this city and resumed his practice at 147 Hancock Street. He will devote special attention to diseases of the stomach, liver and intestines.

Dr. Jerome B. Thomas, L. I. C. H., 1892, is in town and devoting his attention to diseases of the eye and ear, in which he intends to specialize on his return to Los Angeles, California, where he will practice.

Dr. Edwin H. Fiske, announces the removal of his office to 91 Lafayette Avenue.

Dr. Charles Dwight Napier, of Bedford Ave-



nue, has been invited to give the course of lectures on Orthopedic Surgery this winter at the Long Island College Hospital in place of Dr. Richard W. Westbrook, resigned.

A barber in Germany was recently heavily fined for not having sterilized his razor before shaving his customer.

Dr. John E. Jennings has removed his office to 164 Halsey Street.

Dr. Joseph J. O'Connell, formerly of Remsen Street, who has been abroad for the past three years for his health, has returned, and intends to resume the practice of medicine.

Dr. William Pool, of 147 Clinton Street, has resigned from the gynecological clinic of the Polhemus Dispensary. His place has been taken by Dr. James Watt, of 174 Clinton Street.

Dr. James S. King has removed to 839 Park Place, near Nostrand Avenue, and will conduct a private sanitarium at that address.

Professor Behring was recently asked by Dr. Bernheim for some of his bacillus preparation, mentioned at the recent Tuberculosis Congress, for human experimenting, but the professor declined to supply it, and gave his reasons for his refusal in a long letter. Professor Behring says the preparation cannot travel without losing efficiency, and that he has commanding reasons for not revealing the method of preparation. Further, the professor deprecated its employment in human experiments before the lapse of a year. Dr. Bernheim has expressed dissatisfaction with Professor Behring's attitude.—*Exchange*.

The Long Island Medical Society has elected the following officers for 1906: President, Edward E. Cornwall; Vice-President, W. Carl Schoenijahn; Secretary, John E. Jennings; Treasurer, Walter D. Ludlum. Dr. William A. Tomes, the retiring President, was elected to the vacancy in the Board of Trustees. The Society will continue its policy of meetings in charge of sections of different members. Each meeting will be a symposium on some special subject. The annual dinner of the Society will be held the first Tuesday in February as heretofore.

Prior to the talk on Japan recently at the Kings County Medical Society, Dr. and Mrs. Arthur C. Jarrett entertained the guest of the evening, Dr. Suzuki, Surgeon-in-Chief of the Imperial Japanese Navy, at dinner at their residence. There were present besides, Dr. Takamene, Drs. George R. Fowler, Lewis Pilcher, John A. McCorkle, James W. Fleming, Henry De Forest, James Warbasse, Colonel Austin, of the 13th Heavy Artillery, N. G. S. N. Y., General Pearson, Pres-

ident of the Army and Navy Club, and Messrs. Fields, Fromme and Harry Leal.

The Jewish Hospital fair netted \$52,000. The expenses were \$12,000. It is the intention of the Board of Trustees not to open the new hospital, corner of Classon and St. Marks Avenue, until every debt is paid.

On December 18th, at the Historical Hall, on Pierpont Street, Mr. George Kiernan gave "The Cricket on the Hearth," in aid of the Guild of the Long Island College Hospital. About \$500 were netted.

A. Ross Matheson, M.D., having resigned from the attending Staff of the M. E. Hospital, has been elected Consulting Physician. The other Consulting Physicians are Alfred E. M. Purdy, M.D., and William H. B. Pratt, M.D. At present L. Bolton Bangs, M.D., is the only Consulting Surgeon, the place of Nelson L. North, M.D., deceased, not having been filled as yet. Department of General Surgery, Surgeons-in-Chief: Lewis S. Pilcher, M.D., George Ryerson Fowler, M.D., Henry Beeckman Delatour, M.D. Attending Surgeons: James Peter Warbasse, M.D., Thomas Bray Spence, M.D., Charles Howard Goodrich, M.D., Russell Story Fowler, M.D., Walter A. Sherwood, M.D., Paul M. Pilcher, M.D. Department of Pediatric Surgery, Surgeon-in-Chief: John Bion Bogart, M.D.; Attending Surgeon, Arthur Henry Bogart, M.D. Department of General Medicine, Physician in Chief, Glentworth R. Butler, M.D. Attending Physicians: Ralph M. Mead, M.D., William Nathan Belcher, M.D., Raymond Clark, M. D. Department of Laryngology, Attending Laryngologist, Purdy H. Sturges, M.D. Special Consultants, Laryngologist, Thomas R. French, M.D.; Ophthalmologist, J. Scott Wood, M.D.; Otologist, J. E. Sheppard, M.D.

The death of Dr. Ezra H. Wilson, of 194 Keap Street, is a distinct loss to Science. Dr. Wilson was born at Port Jefferson, L. I., in 1858, and was in his 48th year at the time of his death. He was graduated from P. and S. in 1882, afterwards taking a P. G. course. For several years later he was interested in Hospital work in St. Catherine's and the Bushwick hospitals until his connection with the Hoagland Laboratory in 1891, when he became associated with Sternberg in bacteriological and pathological research. Later he succeeded Dr. Sternberg as Director, and was made bacteriologist of New York City. Up to the time of his death he was interested in trying to obtain an anti-toxin for

typhoid and hoped soon to succeed. His death will be regretted by all who personally knew him. He was a Fellow of the Royal Microscopical Society of London; honorary member of the Society of Military Surgeons, member of the Medical Society of the County of Kings, member of the Brooklyn Pathological Society, member of the Associated Physicians of Long Island, consulting bacteriologist and pathologist to the Kings County Hospital, St. Mary's Hospital, St. Catherine's Hospital and the Eastern District Hospital. Dr. Wilson was also a member of the Hamilton Club.

The Committee on the Prevention of Tuberculosis of the Charity Organization Society has issued a circular calling the attention of the medical profession of the City of New York to the consequences arising from the practice of sending poor consumptives to such states as Arizona, Colorado and California. Quoting from the circular, "Extensive experience has taught us that, difficult as it may be for a poor man to recover from tuberculosis in this city, he is better off here among his friends and relatives, where there are more adequate hospital and dispensary facilities, than he is far from home, where he is thrown entirely upon his own resources and where the great number of consumptives willing to work at the lowest wages make the finding of employment, especially of suitable employment, almost impossible. Favorable results from climate can hardly be looked for unless at least \$10 per week can be spent for board and lodging. The stranger, who has spent a large part of his savings on railroad fare, soon finds himself without work, living in the poorest rooms, eating the scantiest and cheapest food. The practice of advising the removal to other climates thus defeats its own aims and casts upon the charity of other communities a burden which they should not and cannot sustain. We invite the co-operation of the medical profession, therefore, in preventing persons suffering from tuberculosis from being sent to other States unless: (a) They are physically able to work and have secured in advance a definite assurance of the opportunity to perform work of a proper character at wages sufficient for their suitable support; or, (b) Unless they have at their disposal at least \$250 in addition to railroad fare."

Dr. Theodore Weicker, President of the firm of E. R. Squibb & Co., the well-known manufacturers of drugs in this borough, denies most emphatically that the company intends to leave Brooklyn. The report probably gained ground

because the Squibb Company recently purchased a tract of forty-five acres in North Brunswick, N. J., with the intention of building upon it an extensive factory additional to the Brooklyn plant. The new factory simply marks an enlargement of the plant to meet an increasing demand.

Owing to a mistake, a detailed account of the dinner to Professor Charles Jewett was omitted in our last issue. The affair was a testimonial dinner tendered to Dr. Jewett by the Staff and Board of Directors of the Bushwick Hospital, at the "Assembly," Saturday, November 25th. The following toasts were responded to: "Bushwick Hospital," Robert H. Roy; "Our Future and its Possibilities," Dr. Elias H. Bartley; "The Hospital vs. the People," Charles Melville Weeks. Among those present were: Doctors Alderton, Butler, MacCumber, Chapman, Little, Rushmore, J. W. Hyde, Browning, Fuhs, Bogart, Clark, Bartley, Bodkin, Fairbairn, Cox, Bristow, Schelling, Schauf, Williams, H. F. Jewett, Lincoln, W. A. Jewett, Matson, Wilson, Brundage and W. F. Campbell, Messrs. Levi, Wilson, Hotaling, Weeks, Roy and Watkins. The program was in the nature of a souvenir, with the picture of Professor Jewett on the cover.

A most interesting exhibition was the recent "American Tuberculosis Exhibition," at the American Museum of Natural History. The ground floor of the west wing had been set apart for the display of models. Toronto, Canada, had on exhibition the model of a tuberculosis sanatorium. Scattered about the room were models of sanatoriums which are in use in the different States, as far west as Colorado. Chicago sent on models of her hospital buildings for treatment of the disease. Pennsylvania also had a fine exhibition, and New York State had a large model of the tuberculosis sanatorium at Raybrook, in Franklin County, which has been in operation two years. New York City showed how it took care of its tuberculosis patients in tents on Blackwell's Island and in other places. There were also several different models illustrating the "tent cure" and the fresh air cure. The model tent showed how the sick person can breathe fresh air in unlimited quantities night and day. There were also on exhibition models of improved tenement houses, which are a feature of the general plan to prevent the spread of tuberculosis. The idea of those tenements is to admit plenty of air and sunshine. In the room was also a specimen of the old time dark bedrooms, which the people conducting the exhibition say are re-



sponsible for a great deal of the tuberculosis in the city.

A number of influential men of the medical and clerical profession have decided to ask for subscriptions to create an open-air sanatorium for consumptives at Medford, L. I. There will be 160 acres, which can be purchased for \$1,500. It is intended to erect a home which will enable hundreds of the 10,000 consumptives in Brooklyn to secure rest, medical attendance and proper food and freedom from polluted city atmospheres. Brooklyn at present has only 233 hospital beds for those suffering from phthisis.

John D. Rockefeller's Christmas gift to the cause of medical education is the Rockefeller Institute for Medical Research, to which he has given \$3,000,000. The new buildings, which will be ready for occupancy the first week in January, are at East Sixty-sixth Street and the East River, the site including twenty-six city lots and being a part of the old Schermerhorn farm. Appointments on the staff of the laboratory will be announced soon by the board of directors, and, although it is believed that the principal work will be done by its own staff, the institute will continue to aid investigation in other laboratories in this country and Europe. There are now twenty men working under the auspices of the institute outside of New York. Grants of money are made to students in medical research.

Fearing the proposed tuberculosis hospital of New York City, residents of Staten Island, where the building is to be erected, have formed a protective association. The city has already appropriated \$2,000,000 toward building this consumptive sanatorium. The purpose of the protective association is to ask the Legislature for a law preventing the erection of such a hospital in any city of this State and to apply in the Supreme Court for an injunction to prevent the beginning of building operations. Many prominent residents of Staten Island attended the meeting last night. Lewis Nixon, the shipbuilder, sent a cable dispatch from Russia, which was read at the meeting, and which urged Staten Islanders to take all possible steps to stop the erection of the hospital.

That the Board of Health has reduced the death rate from tuberculosis by 20 per cent. in the last decade is one of the opening statements of the third annual report of the committee on the prevention of tuberculosis of the Charity Organization Society. This city, says the report, leads the world in the number of its deaths from consumption and the number of its consumptive

patients, although it has not the highest death rate. No other city does so much for its consumptives. The Charities Department maintained 3,959 patients in its own hospitals in the last year, and paid for the treatment of 788 patients in private institutions each month.

Following are the officers of the Woman's Hospital Society, N. Y., for 1906. President, George H. Mallett; Vice-president, Dougal Bissell; Secretary and Treasurer, Reginald M. Rawls; Executive Committee, George Tucker Harrison, LeRoy Broun, and Edward W. Pinkham; Editor, Herman Grad. For the January meeting, the paper of the evening will be "What Macroscopical Appearance of the Ovary Warrants Its Removal?" by Dr. Bache Emmet. Meetings of this Society are held the fourth Tuesday of each calendar month, except June, July, August and September, at the residences of members. The society now numbers thirty-seven members, all graduates of the Woman's Hospital, N. Y.

The Long Island Medical Society, at its annual meeting, in December, elected as officers: Edward E. Cornwall, President; W. Carl Schoenijahn, Vice-president; John E. Jennings, Treasurer, and William E. Ludlum, Secretary. Executive Committee, Lefferts A. McClelland, Stephen H. Lutz, and William Austin Tomes, the latter in place of Arthur C. Jacobson, term expired.

Dr. William A. Tomes, the retiring president, was elected a member of the Board of Trustees. The society will continue its policy of having each meeting in charge of a different section. Dr. Cornwall will aim to make each meeting somewhat of a symposium. The Society will hold its annual dinner the first Tuesday in February, as usual. The dinner committee is composed of Dr. Robert J. Morrison, chairman, and Drs. Charles D. Napier and William S. Hubbard.

## BOOK REVIEWS.

**DIABETES MELLITUS: ITS PATHOLOGICAL CHEMISTRY AND TREATMENT.** Lectures delivered in the University and Bellevue Hospital Medical College, New York; Herter Lectureship Foundation. By Professor Dr. Carl von Noorden. Translated by Florence Buchanon, D.Sc., and I. Walker Hall, M.D. (*Part VII of Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition.*) New York, E. B. Treat & Co., 1905. 211 pp. 8vo. Price: Cloth, \$1.50.

This book contains the lectures delivered by the brilliant Physician-in-Chief of the City Hospital in Frankfort-on-Main, at the University and Bellevue Medical College. These lectures constitute without question the finest monograph on the subject of diabetes that has yet been written, especially from the therapeutic aspect.

G. R. B.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS, With Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M.D., B.Sc. *Eleventh Edition, Enlarged, Thoroughly Revised and Largely Rewritten.* Philadelphia and New York, Lea Bros. & Co., 1905. ix, 17-910 pp., 1 col. pl. 8vo. Price: Cloth, \$4.00; leather, \$5.00; half Morocco, \$5.50.

Hare's "Therapeutics" is so well known, and its practical value so thoroughly demonstrated by the law of the survival of the fittest, that the appearance of the eleventh edition does not call for special remark. It has been revised to accord with the new U. S. Pharmacopœia. G. R. B.

THE PRINCIPLES AND PRACTICE OF MEDICINE: Designed for the Use of Practitioners and Students of Medicine. By William Osler, M.D. *Sixth Edition, Thoroughly Revised from New Plates.* New York and London, D. Appleton & Co., 1905. 11, vii-xvii, 1,143 pp., 8vo. Price: Cloth, \$5.50.

Whatever may be said—and unluckily there is much—in derogation of Dr. Osler as a therapist, no one will gainsay his great ability as a diagnostician and pathologist. The volume under consideration took its place from the first as a standard, and any one who is sufficiently curious may readily note its influence in the majority of Practices which have since been published. As imitation is the sincerest form of flattery the work needs no further encomium. G. R. B.

THERAPEUTICS: ITS PRINCIPLES AND PRACTICE. By Horatio C. Wood, M.D., LL.D. *Twelfth Edition.* Thoroughly Revised and Adapted to the Eighth (1905) Edition of the United States Pharmacopœia, by Horatio C. Wood and Horatio C. Wood, Jr., M.D. Philadelphia and London, J. B. Lippincott Co., 1905. 11, v-xxxviii, 907 pp. 8vo. Price: Cloth, \$5.00.

This book has become a classic, not only by virtue of the more than thirty years of its existence, but also by its scientific and practical value. It has been thoroughly revised, and more than seventy new drugs have been added for consideration. It is a help to have the relatively unimportant material printed in small type; the essentials, in larger type, readily catching the eye. Its publication has been delayed in order to conform its statements with those of the U. S. P. of 1900. This volume is one of the indispensables for the therapist. G. R. B.

PRACTICAL MASSAGE IN TWENTY LESSONS. By Hartvig Nissen. Philadelphia, F. A. Davis Co., 1905. 168 pp., 1 pl., 12mo. Price: Cloth, \$1.00.

This is a small, but good and practical, treatise on a very useful therapeutic resource. Most of the illustrations are crudely drawn, but sufficiently intelligible. The descriptions of movements are clear and concise. G. R. B.

CLINICAL METHODS: A Guide to the Practical Study of Medicine. By Robert Hutchison, M.D., F.R.C.P., and Harry Rainy, M.A., F.R.C.P.Ed., F.R.S.E. *Ninth Edition.* Chicago, W. T. Keener & Co., 1905. 11, xii, 634 pp., 4 pl., 3 col. pl., 16mo. Price: Cloth, \$2.50.

This book, by British authors, has deservedly reached its ninth edition. It contains an uncommon amount of well-stated and reliable information in regard to the practical methods of investigating medical cases with reference to diagnosis. It is thoroughly worthy of its popularity. G. R. B.

SUPERSTITION IN MEDICINE. By Prof. Dr. Hugo Magnus. Authorized Translation from the German. Edited by Dr. Julius L. Salinger. New York and London, Funk & Wagnalls Co., 1905. ix, 205 pp. 12mo. Price: Cloth, \$1.00.

This is an interesting little book, defining medical superstition and its relation to religion, philosophy, natural science, and medicine itself. G. R. B.

A PRACTICAL TREATISE ON SEXUAL DISORDERS OF THE MALE AND FEMALE. By Robert W. Taylor, A.M., M.D. *Third Edition, Thoroughly Revised.* New York and Philadelphia, Lea Bros. & Co., 1905. 11, vii-xv, 17-525 pp., 6 pl., 10 col. pl., 8vo. Price: Cloth, \$3.00.

To the member of the medical profession interested in genito-urinary diseases, the books by Dr. Taylor need no introduction. The third edition shows the results of careful revision and simplification. Four new chapters have been added, namely, Pruritis of the Vulva, Herpes Progenitalis in Woman, Gangrene of the Vulva, and Injuries to the Female Genitals in Coitus. Of the newer sections incorporated in the text, the following are among the most important: Florence's test for semen; composition of normal prostatic secretion; organic stricture of the urethra and aspermatism; intertesticular anastomosis of the vasdeferens for sterility; tuberculosis of the testicle and the X-ray; cancer of the penis and the X-ray and the radium rays; cezoospermia due to X-rays. The volume is well made and copiously illustrated, and may be endorsed as a useful one to the genito-urinary surgeon, and to the general practitioner. CHARLES S. COCHRANE.

OPHTHALMIC NEURO-MYOLOGY. A Study of the Normal and Abnormal Actions of the Ocular Muscles from the Brain Side of the Question. By C. C. Savage, M.D., Nashville, Tenn., The Author [c. 1905]. vii, 221 pp., 8vo.

Considerable stress is placed upon the importance of locating the interior pole of the eye.

In most cases, this pole is situated on the nasal side of the center of the cornea. This displacement is suggested as the reason for subtracting .50 from the reading of the ophthalmometer, when with the rule, and adding .50 when against the rule. This theory of displacement conflicts with the usually accepted explanation, namely, the existence of lenticular astigmatism.

This latest work by Savage will be appreciated both by ophthalmologists and neurologists.

JAMES W. INGALLS.

COLOR-VISION AND COLOR-BLINDNESS. A Practical Manual for Railroad Surgeons. By J. Ellis Jennings, M.D. *Second Edition, Thoroughly Revised.* Philadelphia, F. A. Davis Co., 1905. Col. front., xi, 132 pp. 8vo. Price: Cloth, \$1.00.

The author has succeeded in putting into compact form the essential facts regarding color-blindness. The historical section is replete with interest. Dalton, in 1794, described his own defective color-sense. About three-quarters of a century later, Wilson, of Edinburgh, pointed out the dangers arising from having color-blind employee's on railroads and steamships. No action was taken until 1875, when a serious railroad disaster occurred in Sweden. The accident was mainly due to the fact that one of the men was color-blind. Soon after, the Swedish government compelled railroad employee's to submit to examination for color-blindness.

The second, third, fourth and fifth chapters are mainly devoted to theoretical considerations. The remaining half of the book relates more particularly to the practical side of the subject. Complete details of the various methods of testing are given. The work will be of special value to those engaged in examining men for public service. JAMES W. INGALLS.

OPERATIVE SURGERY: For Students and Practitioners. By John J. McGrath, M.D. *Second Edition, Thoroughly Revised.* Philadelphia, F. A. Davis Co., 1906. xiv, 628 pp., 33 pl., 7 col. pl., 8vo. Price: Cloth, \$4.50; half Morocco, \$5.50.

The popularity of this work is attested by the appearance of a second edition, thoroughly revised, with much new matter added. One of the excellent features of this work is the thorough manner in which the author describes the surgical anatomy of a region before discussing its operative possibilities. All the standard operations are discussed in a concise and practical manner. Excellent illustrations elucidate the text.

This work is a valuable guide to students or practitioners pursuing a course in operative surgery.

WILLIAM FRANCIS CAMPBELL.



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## ORIGINAL ARTICLES.

### THE INTRACTABLE MENORRHAGIAS OF ARTERIO-SCLEROSIS OF THE UTERUS.\*

BY ROBT. L. DICKINSON, M.D.

Surgeon to Brooklyn Hospital; Consulting Gynecologist to St Mary's Hospital, Jamaica; Assistant Obstetrician to Long Island College Hospital.

Among the causes of excessive menstruation at forty—believed by women, to their peril, to be normal—one not infrequent cause is little known. Cancer, fibroid, polyp, and endometritis are adequately described, and contrasted, and ticketed with clean cut treatment. But climacteric bleeding due to changes in vessel wall and vessel control is both obscure in causation and rebellious to treatment and classification. Whether due to an exaggeration or an antedating of the normal senile alteration, or not, the study of it is more particularly called for among us if it is intimately associated with our American high pressures and neurasthenic tendencies. And the diffusion of this knowledge is desirable if, as in cancer, success in the simpler methods of treatment is conditioned, in no small part, on early recognition.

Let us take for our text a typical case. An American woman of that parentage that hands down either an overweening ambition or a highly cultured nervous system, has worked at school or college or in other preparation for her life interest, with that intensity and eagerness that ensures success and strong character. No relaxation, but only exciting or stimulating recreation; little outdoor exercise; scant let-up from the hounding of a neurotic conscience (the conscience that Thoreau says is ever chewing the cud, never knowing when to swallow it); long years of attendance upon an invalid; an overcrowded schoolroom—this is the common preamble. Though lacking any gross pelvic lesions, there has been dysmenorrhea, and some excess in quantity always, increasing as the time of the change approached. Forced feeding, and tonics, and astringents, the sanitarium or the water cure have had some influence. The moderate ante-flexion was straightened years ago, or the

tendency to retroversion corrected; curetting brought temporary betterment; but the neurasthenia returns. None of several diagnoses have provided adequate explanation, and the four common causes of bleeding have been ruled out in time. There is the big uterus still, and it is somewhat sensitive, and increased blood loss is wearing down the patient. If one removes such a uterus it is found to be thick and dense. It is not greatly changed to an eye "unweaponed," as the Germans say. This is the history.

I have selected for study twenty cases of obstinate climacteric bleeding of an aggravated type from my notes—cases long under observation. Of these, five required hysterectomy and three yielded to vaporization.

*Pathology.*—The normal changes in the vessels due to age, Freund says, run a slow course through thickening of walls and hyperplasia of connective tissue. Increasing with repeated pregnancies, these next show themselves in the perivascular tissues, appearing relatively late in nulliparous women. The process continues in the intermuscular connective tissue, and brings about in the vessels (together with slow closing down of the calibre) a degeneration of the vessel wall, which is of a fatty or hyaline character, and in its higher grades may lead to atheroma. The narrowing of the lumen looking toward the menopause is accomplished slowly and, normally, with very little participation of the intima. At the menopause many vessels go out of commission by obliteration. Their remains are not, as in puerperal involution, exterminated by reabsorption, but may show as corpora-fibrosa. (Freund, p. 73.)

The opinions of numerous writers (Freund has a good bibliography) concerning the causation of preclimacteric hemorrhages may be brought into three main groups. According to one, the active cause lies in the ovary; according to others in the vessel wall (sclerosis), and others localize it in the uterine wall.

1. On the Plueger theory of interdependent ovulation and menstruation it is said that sluggish ripening of follicles in the thickening albueginea of women approaching change of life brings about persistent congestion (endometritis

\* Read before the Brooklyn Pathological Society, May 11, 1905.

ovarialis). The success of castration on the metrorrhagias that present no anatomic basis, and also the hemorrhages in certain ovarian disorders, point toward disturbed ovarian function as the chief cause. As the ovulation-menstruation theory is losing ground, belief in the importance of the ovarian secretion is taking its place. Abnormality in ovarian secretion, not now understood, may be a chief factor in abnormal and excessive blood loss.

2. Most investigators look with favor on disease of the blood vessel as adequate explanation. Rigidity and fragility of the vessel wall invite hemorrhage. Simmons says that nearly all women of 40 to 50 are effected with sclerosis of the arteries of the uterus, consisting of a thickening of the intima and calcareous degeneration of the media. Findley Palmer lays great stress on obstructions to the return flow as an exciting cause, and with von Kahlken, observed a hemorrhagic infarct (apoplexia uteri). Reinecke's uteri, extirpated for severe blood loss, seemed to him to show a presenile, non-infectious sclerosis and "hyperomyotropy" of the arteries (mostly only of the larger) often with participation of the intima, with slight retrogressive changes in the media and widened lumen. On back of vasomotor influence and control in the stiffened wall stress is also laid, and bleeding results when increase of pressure within the vessel occurs. My cases show striking changes in the vessels.

3. Chronic inflammatory changes in the walls of the uterus produce connective tissue increase. This will seriously hamper the contractile power of the muscular elements in the uterine wall, and thus lessen control over and closure of vessels. In this class fall cases wherein the uterine muscle is too weak for the blood vessel, as well as the conditions of degenerated muscle, and also well marked fibrosis. My specimens show phenomenal increase in connective tissue elements, in many large areas to the entire exclusion of muscular fibre.

Freund objects to many of these india-rubber theories. He holds, as the result of his own work, that only the hemorrhages of cancer can find sure anatomical explanation, and that elucidation of the causes of all others are, at present, largely guesswork. He says that only studies of long series of uteri, healthy and diseased, in cases with good clinical histories, will give light, and that this study must include the ovary.

Admitting that no one explanation will fit all cases, and that with all favoring conditions no hemorrhage appears in certain other cases, it is

yet reasonable to summarize this mass of varying opinion as follows:

The causes of persistent menorrhagia in women who have neither neoplasm nor diseased endometrium, lie in one or more of these conditions:

Diseased structure and function of the ovary.

Sclerosis of the uterine vessels.

Obstruction to the return circulation.

Connective tissue increase in the uterine wall.

It was supposed that many of the patients were "bleeders." Mackenrodt says that aside from cancer he knows no cause for the bleeding of the climacteric except arteriosclerosis. For him hemophilia does not exist. The vessels *must* be diseased. Koblanck never saw a case of hemophilia. Gottschalk, but one case. Formerly, I have several times hesitated about removing the uterus for incoercible hemorrhage because of a family history or personal history of the "bleeder" type. Yet there was always a local lesion, usually arteriosclerosis, rarely fibroid, to account for the long years of menstrual hemorrhage, and in no single case troublesome operative, or secondary blood loss.

Let it not be forgotten, moreover, that the arteriosclerosis may affect the uterus and not the general vascular system, and that this is also true of the alterations in the return circulation.

*Diagnosis.*—This, in some cases, is by no means easy. As a cause of the hemorrhage one can readily exclude—

(a) *Cervix carcinoma*, because the cervix looks healthy, and no part of the canal bleeds to a touch.

(b) *Carcinoma of the body*, or sarcoma, if scrapings are examined.

(c) *Fungous endometritis*. Although this usually coexists, the most careful or repeated curetting has only a temporary effect on the tendency to monthly hemorrhage.

(d) *Polyp*; none is to be seen within the cervix, and curette and polyp forceps find none.

*Submucous fibroid.*—Our real difficulty lies in the differentiation between the alterations due to arteriosclerosis and to small submucous fibroid in these cases of persistent menorrhagia. In many cases it is impossible to be certain. In many cases the two conditions exist side by side. The distinction is rendered the more difficult by the changes in the shape and consistency of many sclerotic uteri. These may be enlarged, and very irregular in density and even in outline. This is particularly true of the findings of the finger which is skilled in detecting minor changes, such as the intermittent contraction of non-gravid uteri and that knobbiness and irregularity in den-



sity and symmetry found in the very early weeks of pregnancy, to which I drew attention.

*Treatment:* The measures at our command are (1) general—by removal of obstruction to the circulation, and by medicines and rest; (2) local—by douches, applications, electricity, and tampons, and (3) operative—by curetting, or steaming, or removal of the uterus or ovaries.

*General and Medicinal.*—(1) Obstructions to the portal circulation from whatever cause demand relief. Horizontal rest during the period should be insisted upon in addition to other measures, and the usual medicinal agents pushed. For the anemic the old tincture of iron, given between and during the periods, acts well as an astringent. Schlotterbeck's Helonin, 5i to 5ii in water after meals, continued for months, is an elegant preparation, efficient in the milder cases. Other hydrastis preparations are less costly. Ergot, for a week before the period and every two or three hours during the flow until excessive bleeding is checked, holds more cases than any other one drug. Calcium chloride, gr. 5 after meals, between periods and every two hours during the period has been tried. Adrenalin, 15 drops of a 1-1,000 solution three times a day is at times satisfactory. Stypticin is of undoubted value: gr. ii three times a day.

2. *Local measures:* The hot douche taken during excessive menstruation is occasionally effective. Firm tamponnade of the vagina, done in the knee-chest position, with wool or with strips of gauze, will control for the time in insensitive patients. Zinc oxide gauze remains 24 hours without fouling. A pack of the uterine cavity with a volsellum to hold the cervix, with or without a cervical speculum, is a measure only suited to some emergency. Between the periods astringent applications to the endometrium may help. Tincture of iodine with carbolic acid is the old stand-by. Zinc chloride 10—20 gr.—5i, or chromic acid gr. 10—5i are used. In galvanization, the positive current goes through the intra-uterine stem passed to the fundus, the negative pole being at any indifferent point. Electrical treatment is unsuited to chronic alterations, but does good in atonic cases of bleeding, recent in origin, as in subinvolution.

3. *Operative Cure:* As a thickened endometrium is a common accompaniment of arteriosclerosis, its removal by the *curette* often gives temporary relief. In fully developed forms, however, bleeding is not checked. Most of my cases have been repeatedly curetted, and curetted thor-

oughly, so that no islands of diseased lining remained at the fundus or in the cornua.

The operation next in degree, up the scale of danger and shock, is *obliteration of the uterine cavity*. The uterus is put out of business, but remains. Three methods have been used, the knife, the cautery, and steam.

(a) The mucous membrane may be excised. Duhrrsen recommended it in 1878. Frank reports three cases. He splits the uterus, inverts it, cuts away the lining well into the muscular layers. Then, as stitches draw one wall to the other, he reinverts the thin-walled organ. Curiously enough, his cuts were lateral, yet he had little hemorrhage. Quena has done this also. Antero-posterior splitting should do better.

(b) The mucous membrane may be destroyed with the cautery. Byrne does this (and more) in "domeing the uterus" for cancer. His method might well be modified to treat arteriosclerosis, by splitting the cervix anteriorly to the internal os, then passing his spreading-pronged double volsellum well up to the fundus, and, as one removed the central cone or core, outrolling the corpus. This partial inversion is easily effected with Byrne's volsellum, and his cautery knife blade is a far more delicate tool than the clumsy and blunt Paquelin knife. Working slowly with minimum heat, there is practically no slough, and the cervix is left unharmed with an open canal, or is held by a few stitches.

Queisner split the uterus, drew it wide open, and applied the Paquelin cautery in two cases with success. By a T incision of the anterior vaginal wall he separated the bladder from the uterus and opened the peritoneum, sewed the lower aspect of the bladder to the anterior peritoneal flap (in order to prevent post-operative bladder catarrh), then the uterus was drawn down, split in front and sewed to the lateral vaginal walls; next the mucosa was deeply cauterized.

*Vaporization* has had the usual history of surgical novelties. Enthusiastically lauded for the cure of many troubles, suitable and unsuitable, it is now as vigorously condemned. To me it seems to have a very *definite and very limited field* in the treatment of diseases of women. Its functions are three-fold. To turn the uterine canal into a scar, or to obliterate the cavity—first, for the production of sterility; second, for the menorrhagias of simple arteriosclerosis; and third, for the checking of otherwise uncontrollable uterine hemorrhage in certain patients who could not bear radical measures.

The objection that may be made to atmocausis

is that suitable cases being few, skill in the method is not easily had; that there is no absolute certainty as to the depth to which the sloughing will occur, and that patchy results, with stenoses, will occur. The last two objections are met by using certain precautions, to wit:

- (a) Ample dilation by rubber-covered tupelo tent, placed the preceding evening.
- (b) Curetting to precede steaming, to evenly plane down the surface to be acted on.
- (c) Digital examination of the entire cavity.
- (d) Arrest of bleeding by peroxide.
- (e) Guard over metal influx tube.
- (f) Brief exposure to high temperature.

This last detail prevents too deep an effect, just as the contraction produced prevents excessive penetration. Twenty to thirty seconds at  $115^{\circ}$  C. is the best practice, as taught by Pincus.

*Removal of the ovaries* is called for in certain cases of intractable uterine hemorrhage, as for instance where these organs are the subject of chronic ovaritis productive of pain, or when they are markedly cystic, or prolapsed—particularly in elderly virgins and widows (40 and over). The risk is less than that of hysterectomy. But the occasions are not many, for simple oöphorectomy is not to be recommended where there exists any considerable degree of the following: Chronic leucorrhea, chronic endometritis and raw cervix, cystic cervix, the dragging of a heavy uterus, any degree of displacement or prolapse, or very varicose broad ligaments. Distressing disabilities would remain after oöphorectomy.

*Removal of the Uterus, Leaving the Ovaries.*—Hysterectomy, vaginal or abdominal, is the operation of choice to cure almost all of the intracta-

ble cases. As the organ is relatively small, the technique is simple and swift, the stumps clean and perfectly covered in, and the risks to life and



Fig. 2. Section from body of uterus showing thickening of the coats of two arteries and one vein. Above the large artery is seen a small vessel undergoing hyaline degeneration.



Fig. 3. Section from body of uterus showing a marked perivascular new-formed connective tissue. The fibres are also seen running between the muscle bundles and on one side of the section the connective tissue has surrounded and completely isolated a mass of muscle tissue.

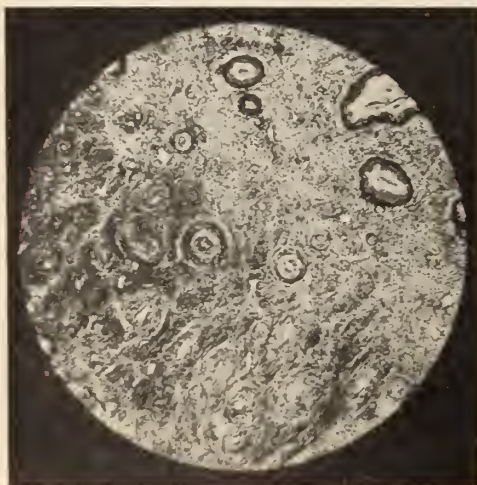


Fig. 1. Section of cervix showing many vessels in various stages of sclerosis. All the coats are affected.

the chances of later aching are not great. Moreover, when a differential diagnosis between small fibroid and diseased uterine vessels has not been possible the operation cures either condition.



Some of the imperfectly steamed cases have eventually come to the radical measure subsequently (as listed by Blacker). The choice between the two routes will be a matter of individual skill and preference in most cases. Through a narrow entroitus of an elderly virgin we would not elect to operate, while a gaping vulva and low-lying uterus would invite this method. The scant shock and absence of mutilation make the writer lean to the vaginal operation when it is not hampered, and he likes Pryor's method. By this method, if it should happen that in splitting the uterus, one or two small submucous fibroids are found, as the cause of the bleeding, the organ can be sewed up and left, if other conditions warrant it.



Fig. 4. A large vein showing marked thickening of all the coats

**Summary.**—A woman, between 35 and 45, complains of excessive and debilitating flow at the periods. At once there come to mind cancer, fibroid, polyp, fungus endometritis. There is no cauliflower cervix, no tumor, scant enlargement. Ergot, hydrastis, douches, rest—all fail. Curetting comes next, and it may bring away thickened lining, or it may bring little. The microscope shows no suspicious structure in the scrapings. The bleedings continue, even if moderated for one or two periods. Then we know there are in that uterus submucous fibroids too small for bimanual touch to detect, or else there is arteriosclerosis. We look for other evidences of arterial pressure or thickening. We may curette again, perhaps, before proceeding further, but we have reached the point when we are called upon to obliterate the uterine cavity or to remove the uterus. If the uterus is distinctly suggestive of

fibroids by nodular feel, if tending to retroversion or prolapse, if there is any doubt concerning cancer, the uterus would better come out. In the absence of these reasons in a patient not strong enough or young enough for a major operation—one who seems to have a simple arteriosclerosis—we have a definite limited field for obliteration of the cavity by steam. Therefore most incoercible menorrhagias call for hysterectomy, an occasional case for atmocausis.

Thus the hemorrhages are arrested and the secondary anemia may be successfully treated. The "neurasthenic" manifestations will be relieved in those cases where the arteriosclerosis has been uterine, but will be lessened merely when the vascular change is general.

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#### SOME MEDICAL PROBLEMS TO BE SOLVED BY THE PRACTITIONER.

BY LOUIS CURTIS AGER, M.D.

A recent editorial in the *Medical News* on the subject of "Scientific Medicine in New York City" contains the following statements:

"We are proud to think and to say that the metropolis is well engaged at original work. We hope sincerely that the rising generation of physicians will realize that the fulfilment of the hopes now so promising depends entirely upon them. Science has rewards, better in the personal satisfaction and the consciousness of good work well done, better even than can come from a lucrative practice. The only thing worth while is to be engaged at work that is successful and satisfying."

Although these remarks referred specifically

to the laboratory worker, they are equally true of the general practitioner who is making a proper use of the ever growing wealth of established scientific facts that are of practical value in diagnosis, prognosis and treatment.

This evening, however, I desire to call your attention to a line of work complementary so to speak, to this application of laboratory theories. The accurate observer notes many things in his clinical work that he has only time to wonder about, but which he would like to hunt down the cause of if he had time. Here and there are found men like Pepper and Osler, who are fortunate enough to combine a rare power of observation with large facilities for observation. Most men, however, do not get together, during a year, for example, enough statistics on any one subject to make them valuable. On this account many practical observations are lost to the profession, and the individual is deprived of one of his chief sources of enthusiasm, and incentive to good work. If therefore, some practical method for co-operation in such matters could be devised, it would be an advantage to all concerned.

For the sake of clearness I have divided this brief paper into three heads:

1. The nature of the problems to be attacked.
2. A partial list of such problems.
3. Some suggestions as to a practical means of solving them.

First. The nature of the problems to be solved. Problems to be solved by the collective observation of busy clinicians must be limited in various ways. In the first place they must appeal to the average medical man as essentially practical, for as a rule he is not interested in merely gratifying the curiosity of some student of the theories of medicine.

In the second place they must relate to matters that are of comparatively frequent occurrence, in order that they may be clearly recognized and described.

In the third place they must be observations that can be made by the way, and without much paraphernalia or special technical skill.

In the fourth place they must relate, as far as possible, to the observation of clear, simple facts in order to avoid the cumulative error resulting from the many personal equations involved. At first sight it may seem that there are not many problems that would comply with all these requirements; yet I will venture to say that every man in this hall could report a different fact or problem that has been puzzling him, and that

would come within these categories. I can only present a few that have come to me recently, and that has resulted in the presentation of this paper.

#### A PARTIAL LIST OF SUCH PROBLEMS.

I. Various questions arising from a systematic use of the diazo reaction in acute fevers. 1. In what percentage of cases does it appear?

A. Scarlatina. B. Measles. C. Acute digestive disturbances.

2. Has its early or late appearance in typhoid any bearing upon the prognosis?

In fact, the whole subject of the diazo reaction is worthy of a good deal of collective investigation, for the reason that it fulfils in every particular the conditions laid down previously. That is, it is a test quickly and easily made, requiring few reagents and very little technical skill. The probable criticism that we already have a lot of such statistics has no weight for the reason that no definite and generally accepted conclusions have yet been drawn from them.

II. Some similar questions regarding the Widal reaction. These are peculiarly problems for the clinician, as they relate to the clinical side of the question. From the diagnostic laboratory we may get certain lists of figures relating to the percentage of appearance of the Widal reaction, etc., but if we are to learn anything of the reasons for the various irregularities in the reaction, the knowledge must come from the careful bed-side observation of the cases in which the irregularities appear. For example we know that the reaction is due to the formation in the blood of specific "agglutinins." Is it not reasonable, therefore, to suppose that the early or late, or non-appearance of these bodies may be in some way an index to the formation of anti-bodies that bring the disease to a close? The only way to determine this question is to get together and compare the accurate histories of those cases in which these exceptional conditions appear.

III. One of the recent additions to our diagnostic reactions is the Ehrlich aldehyde reaction. This resembles the diazo reaction to some extent. It is produced by the action of naphthaquinone-sodium-monosulphate, dilute acid and heat upon the urine, and is present in many cases of severe intestinal indigestion. Professor Herter has recently shown that this reaction is a direct measure of the amount of skatol developed in the intestinal tract, and that it may therefore be a measure of proteid putrefaction in contradistinction to proteid digestion. An accumula-



tion of testimony in regard to this question would be of great practical value. It might be applied for example for purposes of diagnosis and prognosis in infantile marasmus.

IV. Another totally different matter for investigation is the mosquito question. The Health Department took up this question some time ago, I believe, but I have not yet seen its report. It would be an interesting and valuable undertaking for some members of this society to work out a topographical map of the distribution of the anopheles in Brooklyn. This could readily be done, either with the aid of the Mosquito Extermination Society, or Professor Howard, of the Department of Agriculture. Or better, some member of the society might volunteer to identify the specimens sent to him and note upon a large map the place and date of their capture. The hibernation of the anopheles would particularly repay investigation. In my experience the anopheles is a very rare variety in our borough.

I will not weary you with the citation of other interesting and practical questions that have occurred to me. It is quite possible that other problems may be suggested of even more practical importance. These are given rather to illustrate the point of the paper than as a plea for their solution.

How can work of this kind be carried on successfully?

When an organization undertakes any special work it is customary to appoint a committee. It is very questionable, however, whether a perfunctorily appointed committee would be of much actual value in work of this kind, except as a general overseer of the methods.

After considerable thought it seems to me that this work could best be carried on through the *JOURNAL*, the monthly folder, or both. Of course a small committee or a special editor would be needed to classify or arrange matters. A thoroughly practical plan would be to have a special department in the *JOURNAL*, in which any member could state briefly any question that he was trying to solve and could ask for information, statistics, reports of cases or volunteers to cooperate in the solution. One of the first duties of the editor would be to publish a brief list of the most recent literature relating to the question, particularly the literature in our own library. In many instances the inquirer would find that all that he wished to know had already been worked out by others. This would serve two important purposes. In the first place the amount of time saved to the inquirers would be

enormous and in the second place the great practical value of our library would be impressed upon the members.

The editor or supervising committee could keep a record of the men who were particularly interested in special subjects, could bring together those interested in similar subjects and could to a certain extent keep them informed in regard to the literature of the subject.

Finally let me present a few strong reasons why the Society should undertake some work of this kind. We have in this hall to-night nearly all the Society members who take any active interest in the organization. On the other hand we have a large number of members who are doing good practical work in their profession but who at present fail to appreciate the great advantage of a more active interest in the Society. Any step that will increase our active list will also increase our strength and those of us who have the good of the profession at heart realize the progressive value to us, collectively and individually, of all movements that make for a strong, united profession in our city, in our state and in these United States.

(Discussion of this paper will appear in the March issue.)

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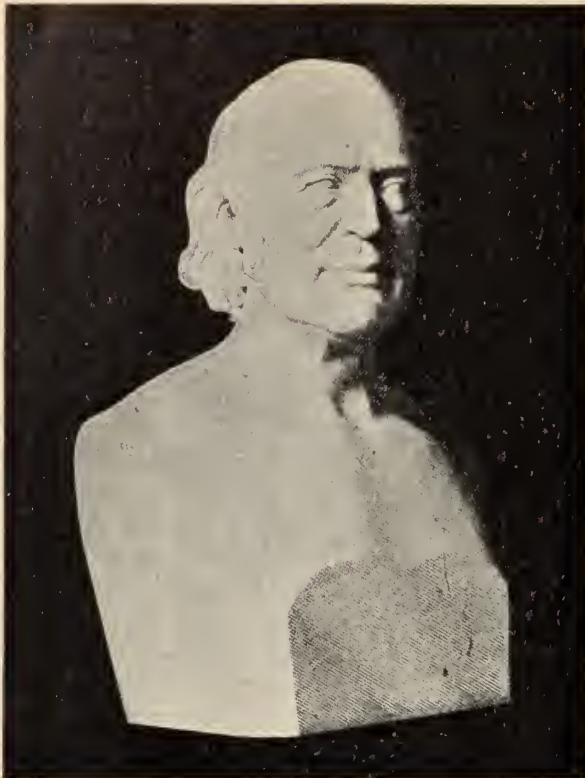
#### HONORS THAT HAVE COME TO THE MEDICAL PROFESSION IN AMERICA.

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BY WILLIAM SCHROEDER, M.D.

Chairman of the Historical Committee of the Medical Society,  
County of Kings, and the Brooklyn Medical Society,  
Member of the Historical Committee of the  
Associated Physicians of Long Island.

The very kind reception my former article on this subject received from the profession indicated that they were not alone pleased, but that an effort should be made to complete it as far as possible. We can only hope that the time will never come when any writer on a subject of this kind will be able to say "it is finished;" for if our profession is progressive in its character it should receive more recognition in the future than it has in the past. While there have been very few memorials erected to professional men, except to those who have gained prominence in the army or navy, we must conclude that the medical profession has not been forgotten; even if we admit that a number have become famous in another direction, the profession has always progressed in the direction of literature or science.



MARBLE BUST OF LOUIS AGASSIZ, M.D., PH.D., LL.D.

Jean Louis Rodolphe Agassiz, M.D., Ph.D., LL.D.: A marble bust of Louis Agassiz stands in the Museum of Comparative Zoology, Harvard University, Cambridge, Mass. His grave at Mount Auburn Cemetery in Cambridge, Mass., is marked by a boulder brought from the glacier of the Aar, Switzerland.

Lieutenant Schwatka in 1886 reported eleven glaciers in Alaska, one of which he named Agassiz glacier. During the glacial period bodies of water were held in position by the ice. One in upper Minnesota has been named Lake Agassiz.

Frederick Dalcho, M.D.: Born in London, England, in 1770, and died in Charleston, S. C., November 24, 1836. He came to America in infancy, and received his education in the schools of Baltimore, Md. For a time he was a surgeon in the army, and stationed at Fort Johnson, Charleston harbor. In 1799 he resumed private practice in Charleston, and established a botanical garden. In 1819 he became assistant minister of St. Michael's Church at Charleston, where he remained until his death. A mural tablet has been erected in memory of Frederick Dalcho, M.D., on the west wall of St. Michael's Church, Charleston, S. C., with the following inscription:

This Stone  
Is Erected by the Vestry of St. Michael's Church  
In memory of  
The Rev. Frederick Dalcho, M.D.,  
Who  
Having served this Church as an Assistant  
Minister for seventeen years  
Died on the twenty-fourth day of November.  
A. D., 1836,  
  
In the sixty-seventh year of his age.  
And was buried near this place.  
Fidelity, Industry and Prudence were the  
characteristics of his ministry.

He loved the church, delighted to the last in its service, and found in death the solace and support of the faith to which, with an exemplary constancy, he had steadfastly held.

He lived and died "In perfect charity with all men."

Thomas' Addis Emmet, M.D., LL.D.: The monument erected in memory of Dr. Emmet in St. Paul's churchyard, New York City, is an obelisk of white marble about thirty-five feet in height. On the front near the top is a medallion likeness in bronze of Dr. Emmet beneath the figure of the American eagle, resting on the Irish harp, surmounted by two hands clasped together, on the bracelet of one are the stars of our Union, on the other a wreath of shamrock.

A translation of the Irish inscription by the Right Reverend Bishop England is as follows:

"He contemplated invaluable benefits for the land of his birth; he gave éclat to the land of his death; and received in return her love and admiration."

A further description will be found in my former article.

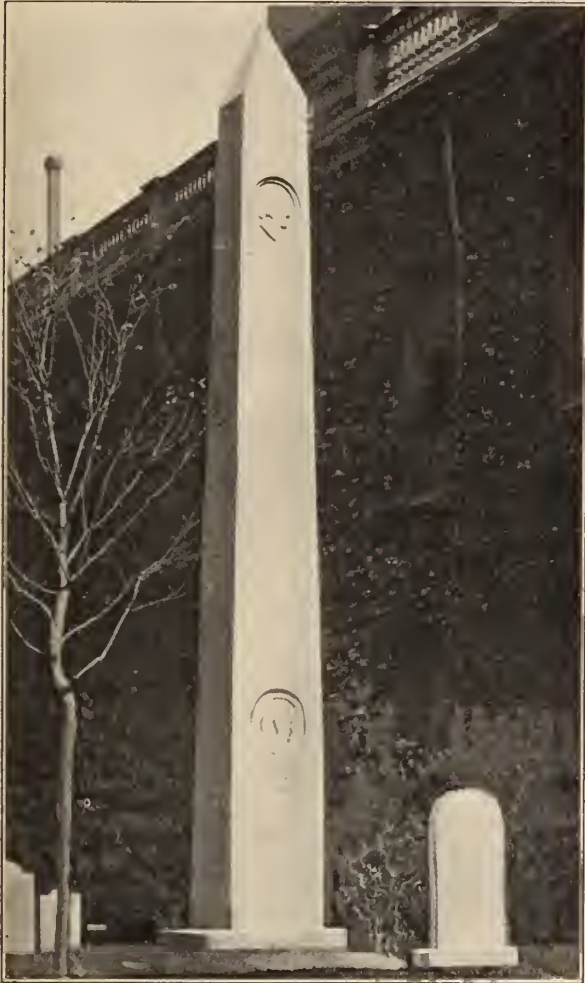
John Green received from Brown's College the degree of A.M., 1815, and from Harvard University, M.D., 1826—Honorary.

The following sketch of Dr. John Green, by his nephew Samuel S. Green, A.M., was prepared for the author:

The statue by Benjamin H. Kinney of Dr. John Green is in plaster, never having been cut in marble. It has stood in the Green library room of the free public library of the city of Worcester, Mass., of which Dr. Green was the "principal founder" for forty to forty-five years. He gave his library to the city of Worcester, a library which he had been collecting during an



active life as a medical practitioner and endowed at his death. The Green Library Fund amounted December 1, 1904, to more than \$53,000. A provision of the gift is that one-quarter of the income shall be added to the principal every year and that any loss to the principal shall be made up from income before the rest is spent for books in his department.



MONUMENT OF THOMAS ADDIS EMMET, M.D., LL.D.

At Dr. Green's death the city government appropriated the sum of \$1,000 for a portrait of Dr. Green.

Dr. Green was descended from Thomas Green, of Malden, Mass., whose grandson, Captain Samuel Green, was one of the leading founders of Leicester, Mass. His son, Thomas Green, became a physician and practised in Leicester, going through a wide circuit also. He also had a medical school, educating 123 young men to be doctors.

He was a fervent Baptist and built a church in Greenville, Leicester. He also acted as pastor

of the church and filled the position most acceptably. He was a thrifty farmer and business man. He seems to have led three lives in one.

His son John became a physician and settled in Worcester before the Revolution. He had a son John who was also a physician, and the Dr. Green whose statue and picture are here given was his son. It may be mentioned that his nephew is Dr. John Green, and his grand-nephew, Dr. John Green, Jr., ophthalmologists, St. Louis, Mo.

All the Doctors Green have been distinguished. The subject of the present sketch was especially eminent in Central Massachusetts, both as a general practitioner and surgeon. He was born in Worcester, April 19, 1784, and died October 17, 1865.

A cousin of Dr. Green, Dr. Samuel Fiske Green, M.D. (brother of the late Andrew Haswell Green, the Father of Greater New York), was a missionary doctor in Ceylon. He educated there a large number of young men as doctors and translated several elementary medical treatises into the Tamil language.

Josiah Gilbert Holland, A.M., M.D.: At the Springfield Cemetery, Massachusetts, there is a granite monument, having in front a bronze



STATUE OF JOHN GREEN, A.M., M.D.



MONUMENT OF JOSIAH, GILBERT HOLLAND, A.M., LL.D.

medallion bearing a bas-relief of J. G. Holland, M.D. Below the inscription:

"For the great hereafter I trust in the Infinite Love as it is expressed to me in the life and death of my Lord and Savior Jesus Christ."

The paragraph from which this sentence is taken reads as follows:

"I am thankful for having enjoyed the privilege of labor and influence, thankful for wife and children, thankful for all my successes. I have intentionally and consciously wronged no man and, if I know my heart, I have forgiven all my enemies." Then followed the words quoted.

Jesse William Lazear:

In memory of

Jesse William Lazear.

Born 2 May, 1866, at Baltimore,

Graduated in Arts at

The Johns Hopkins University in 1889.

And in Medicine at Columbia University, 1892.

In 1895-96 Assistant Resident Physician

In the Johns Hopkins Hospital.

Member of the Yellow Fever Commission in

1890, with the rank of Acting Assistant

Surgeon.

He died of yellow fever at Quemados, Cuba,

25 September, 1900.

With more than the courage and devotion of

the soldier he risked and lost his life to show how a fearful pestilence is communicated, and how its ravages may be prevented.

This tablet was unveiled October 5, 1904, at Johns Hopkins University.

Alfred Lee Loomis, A.M., M.D., LL.D.: A memorial tablet has been erected in honor of Alfred L. Loomis in the hall of the Loomis Laboratory in New York City, with a bas-relief of Dr. Loomis, and the following inscription:

Memorial Tablet in honor of

Alfred Lee Loomis, M.D., LL.D.,\*

Founder, Teacher, Donor.

Born October 10, 1831.

Died January 28, 1895.

Justus, Propositi, Teuax.

Valentine Mott: Born August 20, 1785, Glen Cove, Long Island, he died April 26, 1865, in New York City. He received the following degrees: Newtown Seminary, A.M., 1904; Columbia College, M.D., 1806; University of Edinburgh, M.D., 1851; Hon.; University of the State of New York, LL.D., 1851.

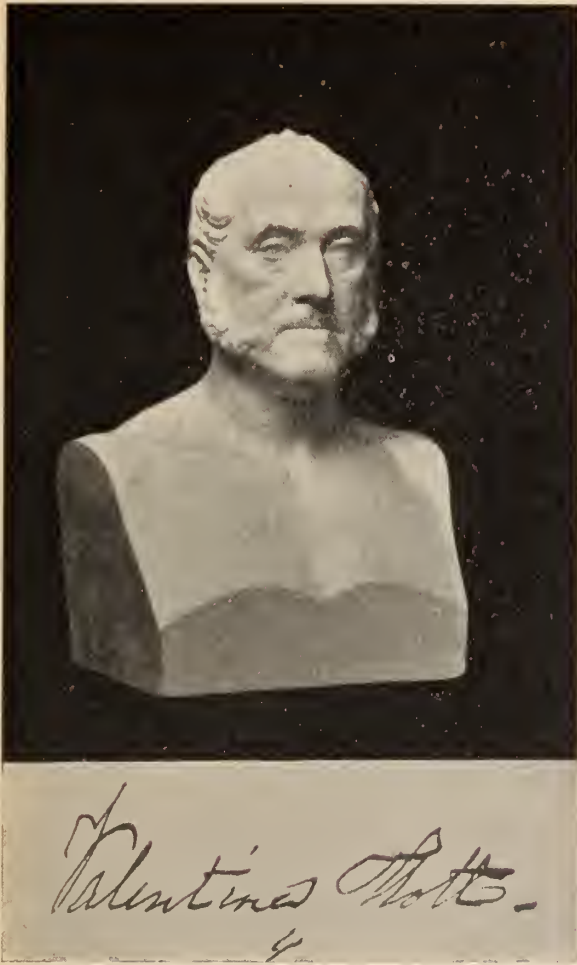
He was invested with the Order of Medjidéchi

\*The middle name as well as dates of birth and death are usually stated incorrectly in biographies. His son, H. P. Loomis, writing me under date October 13, 1905, says: "The dates on the tablet are correct. My father's middle name was Lebbins, not Lee." W. S.



TABLET OF ALFRED LEE LOOMIS, A.M., M.D., LL.D.





MARBLE BUST OF VALENTINE MOTT, M.D., LL.D.

of Constantinople by the Sultan of Turkey. The Mott Memorial Library in New York City, founded in 1866, was named for him.

There are two busts of Valentine Mott, one designed in 1825 by Brawer, and the one here presented in illustration in 1865 by Ward.

William James Macneven, M.D.: The monument erected to his memory in St. Paul's churchyard, New York City, in addition to the inscription previously given, has the following:

In Memoriam,  
Gulielmi Jacobi Macneven, M.D.,  
Qui Hibernia Natus,  
Die Mensis Martii XXI., AD., MDCCCLXIII.  
E. Vita in Hac Urbe Decessit.  
Die Mensis Julii XII. Anno Salutis.  
MDCCCXLI.

As Professor of Chemistry in the medical schools of this city, he was one of the first and ablest teachers in America of those discoveries and doctrines which raised chemistry into a science and prepared it for future illimitable extension

His calm deportment and habitual prudence secured the warmest and most generous affections

As well in the relations of private life, as in his ardent patriotism, alike towards those of the country of his birth, and that of his adoption.

The monument is about thirty-five feet high. In front, near the top, is a medallion likeness in bronze of Dr. Macneven, below, the American eagle resting on the Irish harp cut in stone.

James Rush: The son of Benjamin Rush, M.D., LL.D., was born in Philadelphia, Pa., March 1, 1786, and died May 26, 1869; he graduated M.D. from the University of Pennsylvania in 1809.

He married Miss Ridgway, a daughter of Jacob Ridgway. Dr. James Rush founded the Ridgway branch of the Philadelphia Library, corner of Broad and Christian streets.

"A memorial of the generosity of James Rush, M.D."

Benjamin Rush, M.D., LL.D.: In addition to what has been said in my former article, we find that Rush County, in Indiana, was named in honor of Dr. Rush, and five States have named towns in honor of Dr. Rush.



MONUMENT OF WILLIAM JAMES MACNEVEN, M.D.

Joseph Warren: Born June 11, 1741, at Roxbury, Mass., and died June 17, 1775, Charleston, Mass., "At the battle of Bunker Hill."

The statue erected in honor of Dr. Joseph Warren, Major General, U. S. A., in Roxbury, Mass., in 1905, and placed in Warren Square, bears the following inscription:



MONUMENT OF DR. JOSEPH WARREN, 1794.

Joseph Warren,

1741—1775.

Physician, Orator, Patriot.

Killed at Bunker Hill,

17 June, 1775.

When liberty is the prize,

Who would shun the warfare,

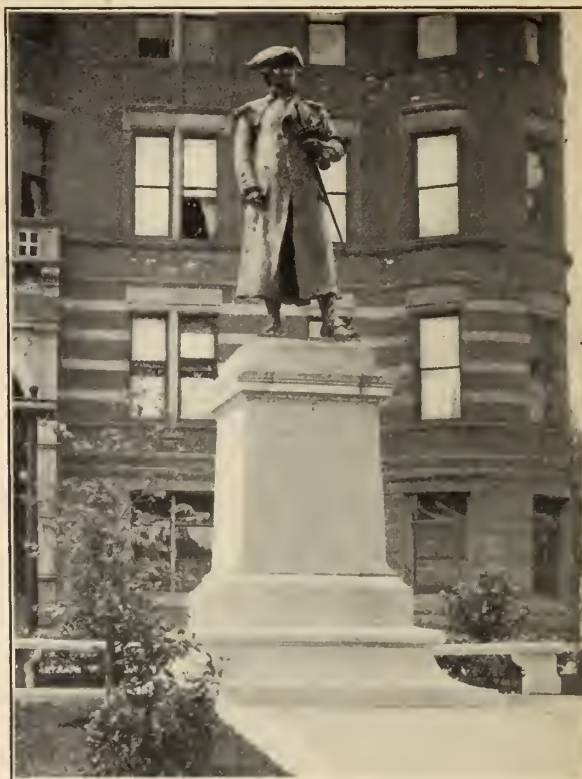
Who would stoop

To waste a coward thought on life.

24 August, 1774.

Joseph Warren.

The first monument in honor of Dr. Joseph Warren was erected by King Solomon Lodge, F. A. M., of Charlestown, Mass., in 1794, and is herewith presented.



STATUE OF DR. JOSEPH WARREN, 1905.

We find the name of Warren County in the following States: New York, New Jersey, Pennsylvania, Virginia, North Carolina, Georgia, Mississippi, Tennessee, Kentucky, Ohio, Indiana, Illinois, Missouri, Iowa and Maine, Warren River in Massachusetts, and about thirty-five towns or villages, and with few exceptions we find a Warren street in every city of the United States.

### TRANSACTIONS OF SOCIETIES.

#### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

85TH ANNUAL MEETING, JANUARY 16, 1906.

The President, J. W. FLEMING, M.D., in the Chair.

There were about 150 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

#### REPORT OF COUNCIL.

The following candidates for membership have been accepted by the Council:

Chester F. Duryea, 4 Clark Street.

Henry Moses, 4 Lefferts Place.

J. N. Teeter, 169 Washington Park.

#### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:



J. Carlisle De Vries, 224 St. James Place, N. Y. Univ., 1895.

Proposed by J. R. Stivers, seconded by Membership Committee.

Maris J. Dattelbaum, 355 Stone Avenue, P. & S., 1904.

Proposed by M. A. Cohn, seconded by Charles Jewett.

F. B. Doyle, 311 State Street, L. I. C. H., 1903.

Proposed by W. H. Rankin, seconded by W. A. Jewett.

John F. Fitzgerald, Kings Co. Hosp., Albany Med. Col., 1886.

Proposed by Membership Committee.

George C. Owens, 275 Kingston Avenue, P. & S., 1903.

Proposed by John A. Lee, seconded by E. J. Morris.

Joseph Rappold, 100 Sixth Avenue, L. I. C. H.

Proposed by Geo. McNaughton, seconded by D. S. McNaughton.

Martin J. Sgier, 1036 Myrtle Avenue, L. I. C. H., 1905.

Proposed by M. F. DeLorme, seconded by E. H. Bartley.

William C. Stolworthy, 506 Ninth Street, N. Y. Univ., 1902.

Proposed by John A. Lee, seconded by E. J. Morris.

Robert O. Brockway, 13 Greene Avenue, L. I. C. H., 1905.

Proposed by Wm. Browning, seconded by A. C. Brush.

#### ELECTION OF MEMBERS.

The following, having been duly proposed and accepted by the council, were declared, by the President, elected to active membership:

Frederick J. Bruce, 246 Sixth Avenue.

Moses Kahn, 277 Graham Avenue.

Frederick Schroeder, Jr., 22 St. Marks Avenue.

James S. Slavin, 174 North Sixth Street.

Theodore L. Vosseler, 370a Monroe Street.

#### DECEASED MEMBERS.

The Chairman of the Historical Committee reported the death of Ezra Herbert Wilson, P. & S., N. Y., 1882, member 1883-1905. Died December 19, 1905.

#### REPORTS OF OFFICERS.

The report of the Treasurer was read and recommendation made therein that the dues for the ensuing year be ten dollars, with three dollars additional to meet the assessment of the Medical Society of the State of New York.

Dr. J. E. Sheppard presented a resolution pro-

testing against that section of the by-laws of the State Society which makes membership in the State Society obligatory on the part of the members of the County Society instead of optional. Seconded.

Dr. George McNaughton moved to amend that the resolution be referred to a committee to be composed of the ex-Presidents of the Society. Seconded.

After a spirited discussion, the amendment and resolution were declared out of order by the President on the ground that they were contrary to the agreement of consolidation between the Medical Society of the State of New York and the New York State Medical Association, which agreement had been ratified by the Kings County Medical Society on February 13, 1905.

Dr. G. R. Fowler moved that the recommendation of the Treasurer be accepted. Seconded. On a rising vote it was declared carried.

The report of the Directing Librarian was read and, on motion, received and ordered filed.

Dr. Wm. Browning moved that the fund collected by the retiring Directing Librarian be called the "James M. Winfield Fund," in recognition of the services of Dr. Winfield as Directing Librarian for the past five years. Seconded and carried.

The report of the Historical Committee was made verbatim.

The report of the Trustees was read and, on motion, received and ordered filed.

Reports were received from the following Standing Committees, accepted and ordered filed:

Membership.

Directory for Graduate Nurses.

Entertainment.

Legislative.

Public Health.

Milk Commission.

#### ELECTION OF OFFICERS.

The following were elected officers for the ensuing year:

President, William F. Campbell.

Vice-President, Glentworth R. Butler.

Secretary, John A. Lee.

Associate Secretary, William A. Jewett.

Treasurer, Onslow A. Gordon.

Associate Treasurer, John R. Stivers.

Directing Librarian, James P. Warbasse.

Censors, Ralph H. Pomeroy, Henry G. Webster, John R. Kevin, William C. Woolsey, Julius C. Bierwirth.

Trustee, James W. Fleming.

The Chairman installed Dr. Campbell as President of the Society.

#### AMENDMENTS TO 'BY-LAWS.

Dr. C. N. Cox moved that the amendments to the by-laws, as published in the *BROOKLYN MEDICAL JOURNAL*, for January, 1906, be adopted *in toto*. Seconded.

Dr. Browning moved to amend that the clauses in the old by-laws relating to the *BROOKLYN MEDICAL JOURNAL* be included in the new by-laws. Seconded and carried.

The original motion was then carried.

Dr. Bristow, having given previous written notice as required, moved to amend the by-laws, as printed in the *BROOKLYN MEDICAL JOURNAL*, for January, 1906, with the addition that the old by-laws relating to the *BROOKLYN MEDICAL JOURNAL* be included in the revised by-laws. Seconded and carried.

The meeting then adjourned.

JOHN A. LEE,  
Secretary.

### THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, NOVEMBER 2, 1905.

The President, T. B. SPENCE, M.D., in the Chair.

(Continued from page 39.)

#### CHOLECYSTITIS WITH FATAL HEMORRHAGE.

DR. H. B. DELATOUR spoke of the case of a man about 57 years of age, who was admitted to his service in the Long Island College Hospital with a history of jaundice extending over some three months, with vomiting more or less persistent, and with a history of considerable loss of flesh. In the neighborhood of the gall bladder could be distinctly felt a mass, which was not particularly tender. There was at that time little temperature, and the previous history, except that the man had had the symptoms as given, was not obtainable. His condition was such that he could not give a very clear history of his illness, and after careful examination Dr. Delatour thought possibly that the man had a carcinoma of the stomach involving the gall ducts, and that the jaundice might be due to that. Still there was a history of previous attacks of colic, which gave a fair reason to believe the possibilities of stones existing, and that might be the sole cause of the trouble. At any rate operation was proposed

and the gall bladder was exposed. The speaker found a single large stone in the gall bladder and a second stone in the common duct. Both were removed and a drainage tube placed in the gall bladder, the wound in the duct being closed. The gall bladder was considerably enlarged and drainage was instituted, because it was thought better to drain the bladder and allow it to contract. The question of the removal of the gall bladder at the time was decided against, because the gall bladder was adherent for its whole length to the under surface of the liver, and the man's condition was not very good. He was extremely jaundiced, and with the knowledge of the hemorrhagic tendency in such conditions he did not feel justified in tearing the gall bladder from the liver with the possible dangers of hemorrhage from that source. The patient made a speedy recovery from the operation and after ten days or so the drainage tube was removed. The amount of discharge had nearly ceased. There was a little sinus, simply admitting the ordinary silver probe, which discharged a little bile at times. The speaker saw the patient on the day previous to the occurrence which he was about to relate, and told the man that he could go home within the next day or two.

The following morning the nurse discovered blood on the dressings, and reported to the house surgeon that the man was in bad general condition. It was several hours before the house staff succeeded in getting in communication with Dr. Delatour, and still later before he could get to the patient. When he did see the man, he found that he was in very bad condition, evidently from loss of blood. The dressings had been saturated several times and changed; the man had vomited blood and he passed blood by stool. The speaker immediately opened the wound and found that the bleeding had taken place from the interior of the gall bladder, which was then distended to the size of the fist and filled with blood clots. As quickly as possible he separated the gall bladder to get a ligature around the base of it and remove it, but the man did not rally from the operation. The amount of hemorrhage at the time was certainly an unusual one. The man had done nothing unusual and nothing had happened which in any way could have been ascribed for the hemorrhage to have started up. The jaundice had entirely disappeared, and still the mucous membrane began to bleed, and bled to such an extent that within four or five hours, he presumed, from the time it started, it bled enough to have destroyed the patient.



*Discussion.*

DR. J. B. BOGART wanted to know, in the gall bladder case, whether before Dr. Delatour's arrival anything had been done in the way of using internal remedies for controlling the hemorrhage' and would like to know the experience of the other members of the Society in reference to hemorrhage in jaundice, and whether any good effects followed the use of hemostatics previous to operation in these cases. Personally he did not recollect ever having had any serious trouble from hemorrhage in jaundiced conditions. Moy-nihan, in a recent publication, speaks of trying the various hemostatics, and gave them up as of no use.

DR. T. B. SPENCE thought that the oozing in these cases was more than that encountered in other classes of surgical cases, and that that seemed to be the general experience.

DR. H. B. DELATOUR answered that his fear of hemorrhage in cases of jaundice has very much diminished as he has operated on these cases. It did not seem to him that the bleeding in patients already jaundiced is so very much greater than in other individuals. There was no treatment given the man before he saw him except general stimulation. Dr. Delatour in a number of these cases had administered internally the fluid extract of witch hazel as a hemostatic, and he believed that in that remedy we do have a therapeutic agent, which by internal administration does have some effect on hemorrhages.

The speaker recalled a case he operated on at St. John's Hospital four years ago, in which a secondary hemorrhage occurred in the interior of the gall bladder two weeks after operation. In this case the opening to the gall bladder was sufficiently large for a packing to be successfully introduced, and the hemorrhage was controlled by thoroughly filling the gall bladder with the gauze pack. In that case when the packing was removed, he believed the hemorrhage recurred once, but after the second packing there was no further trouble from it. In that case the hemorrhage was about as severe as it was in the case presented.

## TREATMENT OF CARBUNCLE.

DR. H. B. DELATOUR presented to the Society a method of treating carbuncles which he had not seen described in the text books, and which he had been extremely well pleased with, and that was the complete and thorough excision of the entire mass. He had hoped to present to the Society a gentleman on whom he had operated

seven years ago, in whom (he was non-diabetic) there was a carbuncle extending from one mastoid process to the other and from well up in the hair to about the external occipital protuberance down to about the seventh cervical spine. In that case he made an incision through the healthy skin to about one-quarter of an inch outside the lowest line of the pustules completely around the entire mass and dissected down to the base of it so as to leave a perfectly clean and healthy surface. The man whose condition had been greatly reduced by the sickness, the carbuncle having been in existence some ten days to two weeks, immediately began to pick up, and within three weeks it was surprising to see the amount of healing and contraction that had taken place. The patient did not want to have a grafting done. The wound was allowed to heal itself, and to-day the resulting scar on the back of his neck is remarkable in that it shows very little and has shown no tendency to contracture. He has a thin pliable skin over the site of the scar.

Several cases of the same nature have been treated by the speaker in a similar way. During the past winter he had a man brought into the Long Island College Hospital with a large carbuncle 4x5 inches in diameter between the scapulae, and in that case running up to the hair line. The dissection was carried down to the base of the carbuncle even to the exposure of the dorsal spines, and there again healing was prompt without any difficulty; granulation and cicatrization took place and left a scar which was perfectly pliable.

As against the ordinary cross incisions and curetting, he thought this plan gives a much shorter convalescence, less danger of further infection and more rapid and satisfactory healing.

*Discussion.*

DR. W. S. HUBBARD spoke of a case similar to that which Dr. Delatour had reported, in which the operation was done by Dr. Wackerhagen, on a carbuncle at the base of the neck, not as large as the last speaker had described, but the same kind of treatment was carried out; the edges of the carbuncle were cut away with the scissors, and what seemed to be a rather extraordinary and elaborate piece of carving was done. It looked after he got through as if the man's neck would never heal up, but in four weeks the wound had come down to the size of a watch crystal and later healed up entirely.

DR. J. D. SULLIVAN said that he had treated a

great many of these cases and had never adopted the method just spoken of. It looked to him to be too radical, but he admitted there might be occasions in advanced carbuncle in which that treatment might be demanded. It appeared to him that here is a case in which the paper of the evening might be well illustrated. He did not think it is well to assume that a country should be condemned by reason of its invasion by a hostile enemy. Here we have simply a location invaded by vulnerable bacteria. It appeared to him if we can arrest or inhibit the action of these bacteria, we cure the carbuncle and leave the tissues in a normal state.

A carbuncle is simply an exaggerated collection of boils around one spot. A boil is simply a folliculitis resulting in an abscess caused by an invasion of the hair follicles or sebaceous glands by the staphylococcus. The action of these bacteria produce toxins, which in turn produce an infective cellulitis around that region. If we can inhibit the action of the bacteria, there are no more toxins produced, the phagocytes will take up what few bacteria are there and the disease is arrested, and the patient recovers without a long course of suffering and confinement, and the danger of opening veins, lymphatics, capillaries and consequent liability of absorption into the system of a greater amount of toxins is avoided. Excision produces an unnecessary amount of traumatism.

Dr. Sullivan's method in these cases is to inject three or four drops of carbolic acid into the centre of the boils, or if a collection of boils around one spot, three or four drops of carbolic acid into each. His experience has been that in a few hours all the pain has ceased, within twenty-four hours the inflammation and oedema have subsided, and little sloughs develop at each point where the carbolic acid was injected; and shortly an opening and drainage, and an exudation from the cellulitis will be poured out into these little sloughs or openings caused by the carbolic acid. If that treatment is adopted early the disease will be arrested. Sometimes he puts on either a local application of 3½ per cent. carbolic and glycerine or compound iodine ointment or a solution of iodine, and his experience has taught him that these applications will limit the action of the bacteria if they are applied to the infected area. He had seen a number of carbuncles and never saw one in which it was necessary to do such large dissection as had been mentioned. If the carbuncle is neglected and not properly treated,

it may be necessary to dissect away all the necrotic tissue.

DR. W. C. WOOD said that there was a gentleman in his office during the past week who illustrated in his own person both methods of treating carbuncles. Some twelve years ago that man had a carbuncle on his neck that was treated first by carbolic acid and second by crucial incisions and scraping. At the end of two months of treatment and several minor operations the carbuncles had partly healed. At that time he developed an abscess in his left kidney, which required nephrotomy. That man was confined to his house for some six months and away from his business for nine months as a result of the infection originating in his carbuncle.

This summer the same man came to the speaker with a second carbuncle in his neck. At that time it was perhaps the size of a watch crystal. Realizing what he had been through before, he asked if it were not possible to excise the carbuncle completely. The speaker told him that it was and it had been his custom to do that for many years in each case in which there was no sugar in the urine; and he excised the carbuncle completely. The patient was detained from his business in the neighborhood of a week and was entirely healed in two or three weeks.

When the speaker was an interne in Bellevue in 1889-90, he first saw Hartley excise completely a carbuncle of some six or eight inches in diameter in a tramp who had come from New Jersey. That to him was an object lesson, and since that time he has always excised all carbuncles completely in cases where there was no sugar, and he had never seen cause to regret it. He did not believe that that treatment is indicated in the presence of sugar, but he did believe it is indicated where there is no sugar.

The method of treating septic processes in the skin by injection of carbolic acid is extremely satisfactory if limited to boils, but in a carbuncle which contains numerous points of infection, we might say innumerable points, the injection of each separate point of infection with a strong antiseptic seemed to him to be a physical impossibility. He was not talking about the early type of infection in the skin, but about those cases which have lasted ten days to two weeks or longer, and it has been his plan for some years to follow out exactly the line of treatment mentioned by Dr. Delatour in all cases where there is no sugar. He has made that a dividing line as between radical and what is sometimes spoken of as conservative treatment of sepsis. The



speaker thought the patient whose history he had related was a striking illustration of the advisability of radical methods for carbuncle.

DR. J. D. SULLIVAN, continuing further, mentioned a case which came under his attention this summer. A young lady, a school teacher, came to him in July with a carbuncle of the upper lip, so that the lip was an immense mass. What was he to do there, he inquired, excise it? He injected it at two or three points with carbolic acid; the inflammation subsided, some sloughs took place, and it healed up in three weeks.

DR. W. H. RANKIN stated that he had treated some quite large carbuncles, where the surrounding area is quite swollen and reddened. It has been his custom to open them, cut away the necrosed tissue, curette the advancing edge and pack them for five minutes with equal parts of carbolic and glycerin. After he removed this latter, he cleansed the field with alcohol and packed with gauze. They promptly became clean granulating wounds and healed up in about two weeks.

DR. R. W. WESTBROOK spoke of a case which he saw this summer, in which the carbolic acid treatment had been carried out with great enthusiasm. The patient was 35 years old with no sugar in the urine. He had a moderate sized carbuncle, and the carbolic acid treatment had been carried out thoroughly and completely. It was three weeks old when he saw it. The man had been confined to the house, was much of a wreck, having chills and fever. On examination the speaker found a large carbuncle about four inches in diameter on the back with numerous puncture holes where the carbolic had been put in, and the clean skin around the carbuncle was blistered. Dr. Westbrook excised freely after the method mentioned, cleaned out that whole large area, and the patient immediately became very much better as regards his general condition. The wound healed up readily. A small area of the scar broke down later, but that recovered itself and thorough healing took place.

This man got up another focus of suppuration on the thigh, which had to be opened at the same time, and which under the carbolic acid treatment, he thought, might have become very much larger. He could not help but feel from such results of this so-called treatment of carbuncles, that the excision method should be advocated very freely, because it at once removes all danger of sepsis in the system and this danger is considerable.

DR. J. D. SULLIVAN, replying to Dr. West-

brook, said that he saw this patient before Dr. Westbrook. The physician who was attending the man had injected carbolic acid, but he did not do it thoroughly. The family physician brought the patient to his office, and he could say that the injections had been imperfectly made. By that time the cellulitis had spread from one mastoid process to the other, and he injected one point. This case should not be cited against the treatment by carbolic acid.

DR. R. W. WESTBROOK reiterated that the carbolic acid treatment in this case had been carried out more than thoroughly when the case reached his hands.

DR. H. B. DELATOUR, closing, said that the two cases presented of large carbuncles had both been given a very thorough trial of carbolic treatment before they came under his care. In the first case where the carbuncle was in the neck high up, it was given by a man who was very careful and who had been as thorough as can be in that method of treatment. In the second case he knew nothing about how thoroughly it had been done, except the history was that carbolic injections had been made; nevertheless in both these cases the disease continued to progress and the patients were rapidly becoming septic. In the second case the man came to the hospital with a temperature of 105 or 106 degrees and was delirious.

Dr. Sullivan says that a carbuncle is nothing more than a collection of boils. The speaker might be entirely wrong in the opinion, but he believed the pathology of carbuncle is a different affair. He did not believe a carbuncle is related to a boil in any sense. He believed the operation less dangerous; there is less chance of disseminating the infection by getting out the entire mass and having a clean surface behind, even though you do open lymphatics and blood vessels, than it is to dicker along the lesser forms of treatment.

Dr. Rankin's methods have been exceedingly satisfactory, and no doubt that is good treatment, but he thought it is just as severe a treatment as complete excision, and it does not leave as clean a surface for granulation to start with.

The case of the lady with the infection of the lip that Dr. Sullivan had spoken of, he should like to know whether it was a true carbuncle or not. There the doctor may have had a boil or two boils on the lip with a cellulitis or infection of the tissues about them. A carbuncle, truly speaking, occurring on the lip, he thought is rather a rare occurrence.

To take up a carbuncle the size of a watch crystal, for instance, and pick out each of these innumerable points and inject them with carbolic seemed to him to be almost impossible.

TRAUMATIC RUPTURE OF THE DUODENUM, FOLLOWED BY GANGRENE OF INTESTINE AND MESENTERY.

DR. W. A. SHERWOOD reported the following case: On June 7, 1905, a chauffeur, aged 35, was brought to the Methodist Hospital with this history: Two hours previously, while driving an automobile in Prospect Park on a slippery road, the machine skidded, the patient lost control of the steering apparatus and the automobile, which was going at a high rate of speed, was brought to a sudden standstill by plunging into a tree. The patient was thrown with terrific impact against the rim of the steering wheel. He managed to find his way to the entrance of the park, where he was found by the ambulance surgeon and brought to the hospital. When admitted his temperature was 96 degrees, pulse rate 120. He vomited frequently and cried out with severe pain, which he said was most intense in the "pit of the stomach." Examination of the abdomen revealed great tenderness and muscular rigidity of the entire abdomen, most marked, however, in the upper half. There was no distention, in fact the retraction of the muscles was so marked as to give the abdomen a scaphoid appearance. Examination of the urine for the presence of blood was negative. The vomiting was of the projectile type. A diagnosis of rupture of the intestine was made, and two hours after admission to the hospital the patient was taken to the operating room and anesthetized.

A median incision was made extending from the ensiform process to one inch below the umbilicus. Upon opening the peritoneal cavity the coils of small intestine were noticed to be injected, and in a few places there were small particles of lymph and undigested food. A gurgle of gas which seemed to come from the region of the duodenum directed the search of the speaker immediately to that region, and upon lifting up the great omentum and stomach the following condition was revealed: Involving the anterior surface of the last two inches of the duodenum and the first three inches of the jejunum there was a straight, clean cut, longitudinal tear in the intestinal wall, from which the mucous membrane protruded in large folds. The mesentery was torn away from the intestine for a short distance, probably not more than an inch. There

was a small quantity of clotted blood in the vicinity and a few particles of foreign substance, which had evidently escaped from the interior of the intestine.

After a careful consideration of the condition presented, a satisfactory closure of the laceration was effected by means of a double row of Lembert sutures. The tear in the mesentery was closed. The circulatory condition of the intestine seemed good. The abdominal cavity was flushed with saline solution and the wound was closed in the usual manner. (The placing of the sutures was difficult and tedious, because of the inaccessibility of this part of the intestine.) The patient rallied well from the operation, and upon recovery from the anesthetic experienced great relief from the pain which before was of the most intense character.

During the first four days his progress was in every way satisfactory. He vomited but little. The bowels moved and gas was passed, and he was sustained by rectal feeding. At no time was there any abdominal distention or rigidity. The temperature ranged between 99 and 101 degrees, pulse rate from 80 to 110.

At the end of four days, however, the patient commenced to vomit incessantly; large quantities of bile-stained fluid being ejected without warning. This was only temporarily relieved by lavage. It continued to grow worse, and from this time on the patient emaciated very rapidly, grew more feeble steadily and died of exhaustion on the seventh day after operation.

Post-mortem examination through the wound revealed most of the intestine which had been involved to be gangrenous. There was also gangrene of several inches of mesentery. The sutures were intact. Should the speaker ever again be confronted by a similar condition, he would consider it a better plan to resect the injured intestine and effect an anastomosis between the stomach and jejunum. In this particular case, however, the condition presented at the time seemed to justify the plan of procedure which was followed out.

RUPTURE OF THE SPLEEN.

DR. W. A. SHERWOOD related the following case: On June 14, 1905, a laboring man aged 40 was brought to the Methodist Hospital in the ambulance with the history of having fallen down a hatchway, a distance of ten feet, striking on his left side. When admitted to the hospital about a half hour after the accident the patient was suffering from profound shock and was



nearly pulseless. He responded well to the customary method of stimulation, but complained of constant excruciating pain in the upper left quadrant of the abdomen. He also complained of great thirst. Examination one hour after admission, when Dr. Sherwood first saw him, was as follows: Skin pale, cool and moist. Pulse rate 110 and very small in quality. Heart sounds weak. Temperature 97 degrees. Lungs negative. No fracture of the ribs could be made out. Abdomen not distended. Marked rigidity of the entire left side of the abdominal wall. Tenderness over the whole of the left half of the abdomen, but the area of maximum tenderness was in the hypochondrium two inches to the left of the median line and three inches below the level of the ensiform process. The rigidity was so great that nothing of value could be learned by palpation. The urine drawn off by catheter showed no evidence of injury to the kidney.

A provisional diagnosis of rupture of the spleen was made, but as the general condition of the patient was at this time improving, and as there were no signs of increasing hemorrhage, it was decided to defer operation.

During the three hours succeeding the patient's admission he vomited frequently and the pain continued with increasing intensity. It was now decided to make an exploratory incision to determine the exact nature of the injury, bearing in mind the possibility of rupture or laceration of some of the hollow viscera.

The patient was taken to the operating room and a five-inch incision was made along the outer border of the left rectus muscle. Upon opening the peritoneal cavity a large hematoma was noticed in the region occupied by the spleen. Bleeding had occurred between the peritoneal covering of the spleen and its substance to such an extent that the spleen itself was obscured. Hemorrhage had also occurred behind the posterior layer of the parietal peritoneum down to the level of the pelvic brim, the clot crowding the peritoneum forward and being at least two inches in thickness. There was no free blood in the peritoneal cavity. The hand placed beneath the spleen revealed a transverse tear in its substance, which readily admitted the tips of three fingers. The peritoneal investment was not torn through. It was evident that an extensive hemorrhage had occurred from this laceration and had followed the direction of least resistance. It had apparently been controlled by the pressure of the peritoneum, which was distended with blood clot almost to the point of rupture. No attempt was

made to repair the injury, for it was thought that any interference would again start up such severe hemorrhage as to require a complete removal of the spleen. After a careful search for further injury, and after making sure that all bleeding had ceased, the wound was closed in the usual manner and the patient was watched for further developments. Considerable pain and a distressing hiccough bothered him for two days. He also complained of a sense of weight in the abdomen. The temperature ran a slightly elevated course for a week, such as would be expected from the absorption of fibrin ferment. The recovery was otherwise uneventful and wound healing was by first intention. At the end of three weeks he was allowed up. Examination at this time revealed a much enlarged spleen, the edge of which was easily palpable and three inches below the free border of the ribs. An examination of the blood did not reveal anything of interest. He left the hospital feeling perfectly well.

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#### THE BROOKLYN MEDICAL SOCIETY.

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The 108th regular monthly meeting of the Brooklyn Medical Society was held on the evening of Friday, December 15, 1905.

The President, DR. R. W. WESTBROOK, in the Chair.

Minutes of previous meeting read and adopted.

#### APPLICATIONS FOR MEMBERSHIP:

Dr. J. D. Freitag, Jr., 433 Ralph Street, Cor., 1904.

Dr. Adolph Kenther, 298 S. Fourth Street.

#### CLINICAL SECTION.

#### TWO CASES OF SUPPURATIVE PERITONITIS.

WARREN S. SIMMONS, M.D.

CASE I. Patient a male; 23 years; married; born in Russia, and employed as a manager in a lace factory.

Patient was referred to Dr. Simmons by Dr. Barnhart on Feb. 15, 1905, with a history of having eaten copiously of sauerkraut two days before. He had some pain during the night and notified his physician. During the next 24 hours the pain continued, but there was nothing in the way of objective symptoms to suspect any serious abdominal trouble. About 12 hours later the doctor found his abdomen intensely tender, rigid and distended; with a pulse of 120 and a

temperature of 103; these symptoms following an exacerbation of the pain and a chill.

About five hours afterward his abdomen was opened, at St. John's, by a long incision over the appendix region. Several ounces of pus, free in the abdominal cavity, were evacuated and a gangrenous and perforated appendix removed. All the intestinal coils were congested and there was considerable exudate on several of them.

Long strips of gauze were packed around the site of the appendix and also downward into the pelvis and another extending toward the left flank. The wound was left wide open, and the patient placed in bed with the head elevated.

The temperature and pulse rate gradually diminished and, attempts at moving the bowels with cathartics and enemata being successful, the distension gradually subsided though for several days the ice coil on the abdomen seemed necessary and small doses of morphine were given for the pain. The packing was left in the wound for four days and then dressed daily.

Four weeks later a large collection of pus was discovered in the left side and had to be evacuated under ether by an incision in the left inguinal region. This also was drained.

Two weeks afterward a third operation was done to empty a third abdominal abscess that developed in the median line.

Between the second and third operations, the patient had a most severe attack of septic erythema, the skin over the whole body becoming bright red and in some places a dull red followed by a peeling of the epidermis and total loss of all his hair.

In spite of all this he eventually made a good recovery and is now back at his business and enjoying good health.

CASE 2. The second case is that of a boy aged 12, whom I first saw on the 23d of February, 1901, while visiting another member of the household. His mother said he had some pain in his abdomen. Examination as to tenderness, rigidity, increased pulse rate and temperature were negative and he seemed perfectly well and was up and around the house as usual. Nothing happened for four days, when he was seized with the most intense abdominal pain. His abdomen was board-like, with the knees drawn up and tender over all its extent; pulse, 140; temperature, 105.

He was immediately taken to St. John's and I opened his abdomen through an incision in the right iliac region, as the tenderness seemed rather more marked over the appendix.

The condition found was as in Case 1, a necrotic ruptured appendix, no adhesions, and fully a quart of brownish yellow pus in the abdominal cavity.

Treatment same as in Case 1, by iodoform gauze drains across abdomen and down into the pelvis and at site of the appendix. When returned to bed he was kept with his head elevated and ice coils were packed on the abdomen.

His temperature and pulse rate gradually subsided until 15 days later, when they both rose after a chill and an abscess was found in the left side of the abdomen. Another abdominal incision was necessary, and with drainage of the abscess the child went on to complete recovery.

These two cases illustrated to me the value of opening the abdomen and giving the patients chance to live, even though the cases both seemed hopeless. I admit the chance was very small and the shock of operation great. The mortality in such instances is very high, but I believe they are better off with drain in the abdominal cavity than when treated by a method which tends to starvation and abdominal ice coils with the pus locked up there without any chance to escape. It was not very long ago that such cases had the foot of the bed elevated in the hope that the lymphatics of the diaphragm would take care of the pus, but the method of Fowler employed here is more rational, as it allows the surgeon more easily and surely to treat further abscess formation, as they tend to form in the lower part of the abdomen where they are more accessible.

Dr. Joseph Meyer read the report of a laryngeal case necessitating tracheotomy and in which there was paralysis of the vocal cords, and cancer was suspected but was proved negative on examination. Etiology was unknown. Tracheotomy was performed and patient still wears tube and is getting on well.

Dr. Meyer also read the report of a case of closure of the posterior nares, the closure being caused by a bony structure. This he forcibly opened and cauterized. Infection of the large glands followed abrasion of the mucous membrane and there was also a moderate amount of aphasia and patient had to be taught to pronounce words. He also mentioned a case of chancre of the hard palate, the first that he had ever seen, the etiology he attributed to kissing.

He gave a brief history of a case of peritonsillar abscess in a child one year old.

He concluded by speaking of the use of Semmeform as anesthetic for office, saying that its anal-



gesic effects remained for fully four minutes after the anesthesia ceased.

FIRST PAPER, "STRANGULATED HERNIA, WITH SPECIAL REFERENCE TO COCAINE ANESTHESIA, BY DR. E. A. PARKER.

Strangulation occurs, usually in a pre-existing hernia, as a result of fecal stasis, venous or arterial obstruction existing separately or together.

As in non-strangulated hernia the sac may contain any of the abdominal viscera, but most frequently intestine and omentum.

One patient had only the Fallopian tube in the sac of a right strangulated femoral hernia.

The point of obstruction is usually at the ring, but as a result of inflammatory changes may occur in any part of the sac.

The symptoms of strangulation are pain, vomiting, constipation, sub-normal temperature.

Pain is most pronounced at the point of obstruction, rhythmical in character and, as with most abdominal lesions, radiates from the umbilicus.

In the interval, between the pains, the patient may walk around. A girl aged five was found sitting on the floor playing with toys. During a paroxysm of pain she would bend over and scream. After its subsidence she would again play. Operation showed a strangulated diaphragmatic hernia.

An exception to the rule, that pain is most marked at the point of obstruction, occurred in Mrs. B. She had a left reducible femoral hernia of many years standing and a recent right strangulated femoral hernia. She had excessive pain and tenderness over the left abdomen, but knew nothing about the condition existing on her right side until her attention was called to it.

Pain, in strangulated hernia, as in other conditions, must be valued according to the temperament of the patient.

Vomiting occurs early and is persistent. First stomach contents are expelled, then mucus and bile, later the vomitus becomes stercoraceous and at times fecal.

Temperature is normal or sub-normal. There is fever when peritonitis sets in.

Constipation is usually absolute, there being inability to pass gas or feces. An enema may bring away fecal matter from below the point of obstruction. Air introduced with the syringe may be expelled.

Mrs. T., aged 62, was afflicted for twenty years with a left, reducible, femoral hernia. After over-exertion she could not replace the mass.

Several loose movements from the bowels occurred followed by constipation, paroxysmal pain and sub-normal temperature. The sac contained about six inches of omentum and several coils of small intestine. This patient was the only one in my series of strangulated hernia whose attack was ushered in with diarrhea.

In that form of hernia where only a portion of the intestinal wall is constricted (Richter's hernia), the bowels may move irregularly at first, but later constipation is the rule.

DIFFERENTIAL DIAGNOSIS.

*From Peritonitis.*—In strangulated hernia pain is rhythmical; in the interval the patient may walk or play; temperature is normal or sub-normal. In peritonitis the patient lies in bed with limbs drawn up; there is no desire to leave the bed; temperature is elevated.

*From Inflamed Undescended Testicle.*—The testicle is absent from its normal location; pain is characteristic.

*From Inflamed Gland.*—Feel the gland between the fingers.

Mrs. R., aged 70, was believed to be suffering with an inflamed inguinal gland. Eight hours later vomiting and paroxysmal pain having set in and no gas or fecal matter having been expelled, gentle taxis was employed. A gurgling sound and the reduction of the mass cleared up the diagnosis.

*From Other Forms of Obstruction.*—The symptoms are the same. An examination should be made of all hernial sites.

A good rule: "When in doubt, operate."

Since May, 1901, I have treated twenty-seven patients suffering with strangulated hernia; nineteen females, eight males. Two were diaphragmatic—one female, aged 5; one male, aged 32. One had been suffering eight days, the other three, when operated. Both had pain and tenderness most marked in the left hypochondriac region. In both the hernia was through an opening in the left side of the diaphragm. Both died. Sixteen were femoral hernia. Fifteen females, one male. The male, aged 62, recovered. One female refused operation and died the ninth day. One had her hernia reduced by taxis and now wears a truss. One, a Richter's hernia, was operated the seventh day under ether anesthesia. She died within a few hours. One required resection of thirteen inches of intestine. She died the following morning. The remaining eleven of the femoral type recovered after operation. Six were of the inguinal variety. All were males;

all were operated; five recovered. The one who died, although a strangulation had existed but ten hours, required resection of twenty-two inches of intestine.

Two females had umbilical and one ventral hernia. The three recovered.

Six of the patients operated varied in age from 60 to 72; all recovered.

In this series of twenty-five operated strangulated hernia patients, all recovered excepting the two diaphragmatic, which should be classed more appropriately under intestinal obstruction, a seven-day case suffering with marked toxemia when operated, and two whose intestines showed such severe circulating disturbances as to necessitate resection. The series shows: that with some hernia after several days' strangulation the intestines may be replaced with safety; with others a few hours suffice for gangrene to set in.

*Treatment.*—Gentle taxis may be tried for a few moments; this failing, immediate operation is called for.

Operation is performed to relieve the obstruction and to prevent recurrence. There are many recognized methods of operating upon hernia with the idea of effecting a permanent cure; but this result seems to depend more upon primary union than the particular modern method employed.

For inguinal hernia I use a slightly modified Bossini and perform the operation under cocaine-morphine anesthesia. These patients being worn out from pain, shock and toxemia certainly have their chances of recovery lessened by a general anesthetic. The nerve-blocking method of Cushing is ably described by Bodine in the *Medical Record*, October 21, 1905. The nerves supplying the inguinal region are the hypogastric branch of the ilio-hypogastric, the inguinal branch of the ilio-inguinal and the genital branch of the genitocrural. The two former being formed from the first lumbar and the last from the first and second lumbar.

The patient is given whiskey by mouth and a hypodermic of morphine  $\frac{1}{4}$  grain. 2-5 of 1% cocaine in normal salt solution is the strength used. This solution should be freshly prepared and sterilized. The needle of a filled hypodermic syringe held in the right hand is thrust into a fold of skin pinched between the thumb and index finger of the left. The needle should be just under and parallel to the skin. A wheel is developed. Into the center of this wheel the needle is again plunged and a second wheel formed. When wheels have been raised the entire length

of the proposed incision, the skin is incised exposing the fascia of the external oblique and the external ring. The ilio-inguinal nerve is located as it emerges through the external ring and infiltrated. A vein under tension may be mistaken for the nerve. By releasing the tissues a vein refills and changes color. The external oblique is now incised from without inward over the inguinal canal. The inguinal nerve again comes into view, resting upon the internal oblique muscle, and is infiltrated.

Just above the internal ring the ilio-hypogastric may be seen and blocked. The pillars of the internal ring and the prepared line of incision over the hernial protrusion are infiltrated. The sac is separated from the cord and the neck of the sac injected. The genitocrural nerve, if seen, is infiltrated. The sac is ligated and cut. Any nerve filaments coming into view are injected.

Handling of intestine and omentum is painless, unless the omentum or mesentery be dragged upon. Hot laparotomy pads placed upon intestine cause no discomfort unless they come in contact with the skin of the abdomen or thigh.

All of my patients did not have complete freedom from suffering under cocaine. In one with a large umbilical hernia I was compelled to complete the operation under a general anesthetic. Some required more whiskey and others were given the psychical benefit of inhalations of equal parts of alcohol and water.

Cocaine proved most satisfactory in a patient operated upon last week. I shall briefly give his history.

Mr. S., German, aged 65, seen in consultation November 7th, at 9 P. M. Had a lump in his right groin, which for many years would come and go; but while working this morning it came down and could not be replaced. It was never so large as at present. He vomited mucus. His bowels have not moved and he can pass no gas; he wishes he could. Pain comes and goes; it is over the lump, at the navel, and all over the lower abdomen.

Temperature 97 degrees F. Pulse 110. There is a very large, tense and tender scrotal tumor. Urine 1030, albumen, no sugar. Operation at 11.30 P. M. The technique, as previously described, was followed. During the entire operation, which included the removal of six inches of omentum, we heard his only complaint when the first needle puncture was made in the skin. We used two ounces of whiskey,  $\frac{1}{4}$  grain of morphine and 1 grain of cocaine for the entire operation.



I find that the more thorough the nerve blocking, the less suffering for the patient. A person afraid of a general anesthetic, as was the old gentleman whose history I have just reported, will more readily submit to operation when assured it can be performed with but little discomfort under cocaine.

Without cocaine-morphine anesthesia I believe my death rate, following operation for strangulated hernia, would have been higher than 13 per cent.

#### *Discussion.*

DR. J. P. WARBASSE claimed that many cases of strangulated hernia were incarcerated and were misleading as to statistics. He took exception to the writer's statement of the depression following and said that there was plenty of vitality.

DR. JAMES C. KENNEDY stated that the higher mortality in strangulated hernia was frequently due to patients coming to the operating table too late, contrary to the admonition of the medical attendant.

He related a case where, in the sac of a strangulated femoral hernia, a normal appendix was found; the wall of the cæcum strangulated some distance from the appendix attachment forming the dangerous type of strangulated hernia known as Richters or Littres. He stated that the absence of pain in the later stages of strangulated hernia was a bad omen. Relating a case of strangulated femoral hernia existing for some hours, the gut was found gangreneous, necessitating an end-to-end anastomosis; during these hours there was absolutely no pain.

He regarded the correctness with which an anesthetic was given of far more importance than the particular anesthetic chosen. He was convinced that in the near future medical colleges would give a more thorough and complete course in this important branch of medical science. The introduction of cocaine anesthesia would in time cut down the mortality of anesthesia generally. That cocaine as an anesthetic has a brilliant future, there can be no doubt; that it is fast passing the experimental stage there is no question; as a spinal analgesia its success would have been complete had it not met defeat at the hand of the neurologists; indeed, in all capital operations, below the diaphragm it would have surpassed general anesthesia.

In his hands, cocaine, both by the spinal and local methods, had given the happiest results.

DR. McENTREE said that he had seen two cases of transverse myelitis after spinal cocaineization.

#### SECOND PAPER: "THE HEMORRHOIDAL QUESTION,"

BY DR. JAMES P. WARBASSE.

#### *Discussion.*

DR. KENNEDY said that he had never used anything but the clamp and cautery and that with entire satisfaction.

DR. M. L. BODKIN spoke of the treatment of internal piles, mentioning particularly the naevoid, thrombotic and venous varieties. He praised the ligature treatment, mentioned sterile water anesthesia, and spoke of the necessity of diet and the regulation of the bowels.

DR. JOHN D. SULLIVAN congratulated Dr. Warbasse on the excellence of his paper. The writer had left little to be said and he would like to emphasize the writer's recommendation to first treat the patient. This was of paramount importance. Find the cause of the disease and if it be hepatic or cardiac trouble, or due to over-eating, or from any discernable cause, treat that first and cure it and you will be very sure of getting the best results. He said that proper diet, proper drink and proper exercise were the mainstays of the treatment. He spoke of the various operative procedures, dwelling on each, pointing out their good and bad points. He closed his remarks by telling of the very satisfactory results he had obtained by the use of adrenalin suppositories in these cases.

DR. JOHN A. LEE spoke of a case of a scybalous mass which he found in a rectum in a case simulating piles.

DR. WARBASSE, in closing, said that he had never used the clamp and cautery, and believes that the best surgery calls for excision, ligation and closure.

HUGH EDWARD ROGERS,  
*Recording Secretary.*

#### THE BROOKLYN GYNECOLOGICAL SOCIETY.

A. A. HUSSEY, M.D., Editor.

STATED MEETING, DECEMBER 1, 1905.

The President, J. O. POLAK, M.D., in the Chair.

CARCINOMA FUNDUS UTERI. SPECIMEN. REPORT OF CASE.

DR. C. JEWETT presented a uterus with malignant disease of the body, which he had removed

two days before. The patient was a woman of 61 years. The menopause occurred sixteen years ago. She was in fairly good health. The first symptom was the usual watery discharge, the bloody discharge beginning about three months ago. At the examination, the uterus was found freely movable, with no evidence of involvement of the cervix or the parametria; the malignant disease was apparently confined to the upper portion of the corpus. As the woman was 61 years of age and the cancer was evidently confined to the body, he operated by the vaginal route.

The speaker thought the patient stood a very good chance of escaping recurrence. The specimen presented a typical example of adenocarcinoma limited to the upper two-thirds of the body of the uterus.

ADENOCARCINOMA FUNDUS UTERI. SPECIMEN.  
REPORT OF CASE.

DR. WM. MADDREN presented a specimen of an adenocarcinoma of the body of the uterus. The feature of this case was the early recognition of the malignant growth in the body of the uterus, with a pretty good hope that if any case will avoid a recurrence, this one will do so. The histological evidence undoubtedly indicated adenocarcinoma. The patient was 63 years of age at the time of operation. She suffered from vague symptoms. She had a fibroma on the posterior surface of the uterus for a long time, which had been recognized at the time of the menopause when she was 51 years of age. She went 12 years without bleeding; then she had a slight amount of bleeding, and two months before the operation a recurrence of hemorrhage took place. She was curetted and the examination of the scrapings revealed malignant disease. Dr. Maddren made an examination very recently and could find no evidence whatever of a return of the trouble. The patient is in good condition and has kept her weight. The operation was eighteen months ago.

DISCUSSION.

DR. W. B. CHASE asked a question in connection with the presentation of this specimen, as to the significance the gentlemen attached to a watery discharge as preliminary and suggestive of the appearance of malignant disease, and also if any of the members had seen the copious, watery discharge keeping up over a period of months or years before more prominent symptoms of malignancy developed itself. He had under observation at present a patient with a discharge of this character who is near the men-

opause. Two years ago she showed evidences of endometritis and he curetted her. At that time she had this discharge almost constantly from the uterus. There was no evidence that he could find of malignancy. There was a question in his mind whether a palliative or radical operation ought to be done.

DR. MADDREN, being called on for a reply, said that if he had any suspicion of malignancy he would curette the uterus again thoroughly and see if he could not find some additional evidence.

DR. JEWETT said that he had been consulted in a case several years ago in which a gynecologist of known reputation in Manhattan had curetted, owing to a watery discharge. About a year later the uterus was curetted again by another practitioner. Later he had himself curetted, the curetings disclosing a dense unyielding uterine wall. The curetings in each case were examined by competent histologists; none found evidence of cancer. Nearly a year later he was requested to see the woman again. He then found plenty of friable tissue in the uterus. She died of cancer. There was a period of two years or more, during which no histologic evidence of malignancy was obtainable by the curette. He thought that a persistent, watery, uterine discharge, occurring in a woman at the menopause or later, was a positive indication for hysterectomy.

DR. J. O. POLAK said that Pryor makes the statement that a watery discharge always precedes malignant disease for a period of not less than four months. He puts that as a minimum of time.

METrorrhagia of DOUBTFUL ORIGIN. REPORT OF  
CASE.

Because of the request on the card, Dr. Jewett related the case of a young woman he was recently called to see on account of uterine hemorrhage, which began eight months after pregnancy and had continued for three months. She had been curetted two or three times. The physician said that at each curetting he got large amounts of friable material, but no histologic diagnosis was had. She had some lesion of one eye, which had developed at about the same time as the hemorrhage. Her oculist had pronounced a malignant growth. The eye, however, improved, and at a second examination he had, for some reason, discouraged operation. Dr. Jewett concluded the woman must be the subject of malignant disease of the uterus, pos-



sibly deciduoma malignum, and took her into the hospital. He found some elevation of temperature, the uterus enlarged, but the tissue apparently normal. After a week the patient was sent home, pending further developments. In so young a woman he did not feel justified in sacrificing the uterus on the strength of the evidence presented. It was possible that her bleeding was caused by a retained placental cotyledon. It was of interest to note that the genital hemorrhage, which was not relieved by ergot, was promptly controlled by ten minims of adrenalin solution, one in one thousand, every four hours.

DR. J. R. TAYLOR said that, although women suffer more frequently than men from malignant disease, cancer of the rectum, according to most observers, is less often seen in women than in men, the percentage being 4.3 in women and 7.5 in men; this being computed from a series of cases of cancer occurring in all parts of the body (4,628 cases in women and 2,699 cases in men, a total of 7,297 cases). In another series of cases, consisting only of cancer affecting the intestine, Williams found the percentage of cancer in and about the rectum to be 81.4 per cent. Leichtenstern makes the percentage of cancer in and about the rectum 80 per cent. Malignant disease of the rectum may be classed under two headings:

1. Carcinoma—composed of epithelial tissue.
2. Sarcoma—composed of connective tissue.

Carcinoma of the rectum is relatively common; sarcoma of the rectum very rare. Out of 435 cases of malignant disease of the ano-rectal region, tabulated by Williams, 428 were carcinoma and only seven were sarcoma.

The carcinomata may be divided into four groups: The pavement celled or epithelioma proper; the cylindrical or adenocarcinoma; the medullary carcinoma, having a histologic structure resembling that of racemose glands; and scirrhus or hard carcinoma, in which the fibrous element is the most prominent feature and the epithelia are very scanty.

The first variety usually develops at the ano-rectal margin, where it grows first at least at the expense of the skin, attacking the mucosa later. This type is least liable to recurrence and gives the best results to operative interference. The second, third and fourth varieties develop within the rectum proper.

Kiliani counts cancer of the anus as rare, but gives a more serious prognosis for it than for cancer of the rectum. Carcinoma of the rectum,

as elsewhere, is composed of two essential elements, viz: the epithelial cells and the stroma, the latter forming series of alveoli in which the cells rest. The varieties are distinguished by the character of the cells and the amount of stroma. The character of the epithelium is usually that of the tissue in which the neoplasm develops; the shape of the individual cell, however, is governed by the amount of pressure to which it is exposed in the alveolus, beginning by the epithelial cells invading the lymphatic spaces, which they distend to form alveoli, but not attaching themselves to the fibrous walls. The stroma is composed of the fibrous or myxomatous tissue of these spaces, containing more or less of the histological elements of the surrounding tissues. In the rectum, it frequently contains tubules, follicles and unstriped muscular fibres, reaching its highest development in slowly-growing tumors like scirrhus and its lowest in the fulminating variety like medullary cancer. The alveoli which connect with each other are the original lymph spaces of the tissue, and, therefore, freely connected with the lymphatics of the parts. This fact accounts for the spread of the disease along the lymph channels. Blood vessels and nerves ramify in the stroma, but do not enter the alveoli, hence the disease seldom follows these tracts.

Epithelioma grows slowly and extends in the surrounding areas of the perineum rather than up the rectum. Beginning as a slight nodular elevation in the skin or just beneath the epithelium, over which the skin is not movable; sometimes very painful, occasionally practically painless, but rarely gives rise to serious hemorrhage.

Adenoid cancer, adenocarcinoma, is the most frequent variety of malignant growth of the rectum proper, and consists of tubules of irregular form arranged in manifold convolutions and lined with cylindrical or columnar epithelium. The epithelia are arranged at right angles to the stroma and possess no basement membrane. They are short, nucleated, and in many places broken up into medullary corpuscles, which partly or completely fill the calibre of the tubules. The stroma is infiltrated with these corpuscles and contains comparatively few blood vessels. The more rapid the growth the more atypical is the glandular formation and the smaller are the cells and lumina. Early metastasis is the rule with these growths, the secondary nodules possessing the characteristics of the primary growths.

Medullary cancer is the most malignant type

and consists of a large and pulp-like growth of large and irregular epithelia, coarsely granular and multinucleated with scanty stroma of fibrous type densely infiltrated with inflammatory corpuscles. The alveola are large, the stroma often embryonic in character and abundantly supplied with blood vessels. It occurs much earlier than scirrhus and metastatic deposits are not so frequent as in adenocarcinoma, because it usually kills before these can take place.

Scirrhus is the most infrequent and slowest-growing type of all the cancers of the rectum and occurs late in life, composed of a dense fibrous stroma and epithelial cells. Clinically, these growths appear in the shape of a gradually contracting stricture of the organ, cause practically little or no pain, have very little discharge and no hemorrhage; cachexia and sepsis are practically absent, and unless the growth changes into one of the other types the final end comes through intestinal obstruction or rupture of the gut above the growth. Gradually increasing and intractable constipation is the most prominent symptom.

DR. C. JEWETT said that, with reference to the question of the increasing prevalence of cancer, there seems to be little reason for doubt. Yet it is possible that the greater apparent percentage in recent years may be explained in part by better methods of observation and more accurate records. Everyone must be struck with the vast difference in the incidence of cancer in different localities as shown in the doctor's tables. These facts would seem to support the parasitic theory; a theory, however, which he considered far from proven.

As to methods of treatment, colostomy, which Dr. Maddren advocates, is a disputed question. Most surgeons do not favor colostomy as a routine procedure. It is indicated in special instances.

Concerning the extirpation of rectal growths, he thought the results are nearly as good as in cancer of other pelvic organs, and the attempt at cure is equally justifiable. The case which he had reported some months ago was a clear case of life prolonged. He resected the entire diseased portion of the rectum without material difficulty, and had found the whole tract lined a few weeks later with mucosa; the stitches had held and good union had been obtained between the two ends of the gut. At the time of operation, the woman was in bad condition. She had suffered intense pain and was rapidly losing weight and strength. She was quite anemic.

At last report she was in excellent health, and had more than regained her usual weight. How long this may continue it is, of course, impossible to say.

With reference to technic, he had suggested a modification of Wier's operations, which he thought would serve well in a certain proportion of cases. It was this: Liberate the upper segment of the gut by the abdominal, the vaginal, or by both routes; then, with traction forceps passed up through the lower rectum, seize the proximal segment and draw it down through the distal segment, inverting the latter. The tumor, if not too large is brought out through the anal orifice. Resection of the diseased portion of the bowel, enterorrhaphy by Maunsell's method and replacement of the gut may then be effected without exposing extensive surfaces to soiling as happens in Murphy's operation.

DR. W. B. CHASE declared that the statistics quoted by the reader of the paper were exceedingly interesting, and that they must impress on the mind of every one the fact of the increase in the growth of malignant disease as a whole. It is certainly a lamentable circumstance, the speaker said, that pathologists up to this date have not been able to ascertain the primary cause of cancer. He remembered vividly the time when even in the medical profession the question was debated whether cancer was of constitutional or local origin. We know it is of local origin, Dr. Chase said, and in proportion as we can diagnose it before it has disseminated itself from the original focus, just in that proportion will we be successful in combating the disease.

Malignant disease of the rectum is certainly, in its early stages, difficult of diagnosis from the fact that we must distinguish it from many other conditions, such as fissure, hemorrhoids and ulceration of the rectum. So the question of early diagnosis has much doubt thrown about it, and while we are waiting to make a diagnosis the disease goes on and the time for operation is past.

The speaker could conceive of no more easy method of operation than the one followed by the reader of the paper. In his experience he had met with several cases of the variety which was mentioned by Dr. Taylor, in which the evidence of the disease was a general impairment of the health and some discharge of mucus; not very much pain, but pronounced constipation. The disease could be felt rather high up in the rectum by the index finger.



PAPER: CANCER OF THE RECTUM IN WOMEN,  
BY WILLIAM MADDREN, M.D.

*Discussion.*

DR. G. McNAUGHTON said that as to the diagnosis he had seen a couple of cases that were diagnosed as malignant disease of the rectum low down and referred for surgical work for relief. Something about the condition suggested to him that perhaps it was not malignant, and they were put upon a course of iodide of potash, and both of these cases were relieved for the time being, one of them entirely; he thought she has remained perfectly well, and the other for six or eight months. The mass disappeared and the induration disappeared, but she subsequently developed cancer. It was a question whether the first time he saw her the disease was not malignant. He believed it had undergone a change and became malignant.

He remembered operating on a case several years ago, in which the mass was well down and the operation was done in this way: The woman was a virgin; she was about 30 years old. He simply passed a purse string ligature quite close to the inner rectal wall, the muco-cutaneous junction, forward to the perineum and transfixing that and tying it tightly on either side of the vulval opening. Then he made a central incision right through what is known as the perineal body down to the rectum. The hemorrhage was entirely controlled by these two sutures, and he was enabled to dissect out the rectum with perfect ease after disengaging it from above. In slipping it down he removed all that was necessary and attached about the perineum and proceeded to repair the perineum afterward, the same as one would a central laceration. The patient was alive three or four weeks ago. There has been a recurrence and she has masses all through her pelvis. There was nothing to do except to give her such relief as he could, and she lived for several days.

Like cancers elsewhere, the speaker said that he did not think these operations were very satisfactory. He thought Dr. Maddren's case has been as satisfactory as he has heard of. Certainly the patient has had a great deal of relief, and it was worth while making the attempt, but all malignant growths in that neighborhood are very prone to recur, especially in young subjects. The older the subject the more likely they are to have permanent relief. There have been cases reported where there has been no recurrence for five to ten years. He should call these cures.

He thought it is fair to report and consider them as positive cures.

The discussion of cancer in any part of the body goes right back to the original proposition, and one that is stated by everybody, that an early diagnosis gives them the opportunity, and the diagnosis is not usually made early, because there are so many other conditions which will produce precisely the same symptoms. The speaker presumed that we cannot go about looking for these cases and we could not compel an examination, and even then we are open to the suspicion that the growth is not cancer. Cancer of the rectum does not occur very often, he understood, representing about 4 per cent. of the total number of cancers that are reported.

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THE BROOKLYN PATHOLOGICAL  
SOCIETY.

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462D REGULAR MEETING, NOVEMBER 9, 1905.

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C. L. FINCKE, M.D., EDITOR.

The President, H. G. WEBSTER, M.D., in the Chair.

The Society of Sanitary Prophylaxis; its Aims and Achievements. An address by DR. EDWARD L. KEYES, Jr.

MR. President and Gentlemen: I believe that most of you know something about the subject that I wish to speak upon to-night, for in our enthusiasm in this propaganda we have distributed to all the members of the County Society a pamphlet gotten out last summer, giving some idea of the work that we are undertaking.

The subject with which the Society of Social and Moral Prophylaxis is interested is a very delicate and a very broad one. In the first place, our object, as stated in the constitution of the society is to attack venereal disease; that is the sum and substance of the whole subject, and it seems to many people, even to many doctors, a relatively unimportant subject, and a subject about which it is impossible to do anything.

You, doctors, all of you, know the frequency of venereal disease. It is stated for example, upon apparently very good authority that 80 per cent. of young adult males suffer from gonorrhea, and it is stated also that 10 per cent. of our adult population, male and female, suffer from syphilis. As nearly as I can make out these figures are roughly accurate. There is thus a great

deal of venereal disease going about, and moreover venereal disease does not go about solely among the lower classes or solely among the ignorant and vicious, whom you might expect to be the sole sufferers. One finds it very frequently among the better classes and, speaking from my own personal experience, I can say that I am daily astonished to see the quality of the people who are afflicted with these diseases, especially with syphilis, and I am astonished and shocked at the constantly recurring cases of innocent victims afflicted with venereal disease in one way or another. Those of you who are gynecologists will, I am sure, second me in the statement which I have from a number of gynecologists, that from 60 to 80 per cent. of the operations for pus tubes, for ovarian abscesses etc., is attributable to gonorrhea, and that in a very large proportion of these cases the abscess is found in a married woman infected by her husband, and often (in most instances, I should hope) this infection is an entirely innocent one on the part of the husband. He gets married believing himself well of a disease of which he is not yet cured. Fournier, who is the great French authority on syphilis, states that of the women who go to him suffering from syphilis, from 15 to 20 per cent. are married women who have been infected by their husbands.

Then, of course, there are the secondary results from these diseases—the sterility both of the male and female resulting from gonorrhea. It is estimated that 60 per cent. of the unwillingly sterile marriages are due to gonorrhea. Then there is the blindness occurring in infants, and as well as that, the syphilis of children born to women in the active stages of that disease. Besides that the shockingly numerous cases of accidental infection with syphilis. Many of you doubtless know of cases in which doctors have been infected by delivering women who are suffering with syphilis. Midwives have on various occasions spread very generous epidemics by getting syphilis themselves in this way, and spreading it to other people. Dentists on several occasions have caused epidemics by infected instruments. We have to consider, therefore, that venereal disease is not necessarily a thing which stamps its possessor as being immoral or as being vulgar, or as being so despised as to be unworthy of any consideration at our hands.

Now, in attacking this disease there are two things that we do not try to do. I find that many men when they hear that there is a society which is attacking venereal disease say, "Oh, yes, you

wish to institute the so-called reglementation of prostitution." That is not our idea in the least. In the first place it is by no means proven that reglementation of prostitution, that is, the authorization of prostitution, is at all effective in controlling venereal disease, and there are two very obvious reasons why it would never be absolutely effectual. In the first place, all reglementation attempts to do is to capture and control the women suffering from venereal disease to prevent them from spreading it among the men. Manifestly one cannot control any infectious disease by simply confining the women who are afflicted with it, while the men are allowed to go loose; and in the second place it has been found to be practically the case, that the possession of a certificate of cleanliness by the licensed prostitute is quite as likely to be a danger as a safeguard, for it is estimated in Paris, for instance, where they have studied this thing very carefully, that the ordinary prostitute encounters three men a day on the average. She is examined, I think, every two weeks. She gets a card stating that she has been examined on a certain occasion and has been found clean on that occasion, and she immediately runs the risk of becoming infected three times a day, and still is able to brandish her card declaring herself to be clean. Manifestly such a system as that, and it is scarcely practicable to make the system more thorough, is no great assurance of safety. However, whether this assurance be effectual or not, the Society of Sanitary and Moral Prophylaxis does not stand for reglementation of prostitution, chiefly because it is absolutely impracticable, given the moral sense of the community as it at present exists.

The second thing we do not stand for is what you might call the evangelization of the human race. We do not hope to make everybody a disembodied spirit, and we do not go at this subject primarily from a moral point of view. The subject is primarily a moral subject, but only the Church can attack the subject from the moral point of view; the physician cannot. I cannot say that the Church or the churches have been attacking the subject any too vigorously, for in our meetings we have had speeches made by members of various denominations, rabbis, priests and ministers, and they have all confessed themselves astonished at the prevalence of venereal disease, as exhibited by the medical speakers, and most of them stated frankly that they did not attack the subject at all. From the moral point of view they stated that they believed the subject



could only be taken up in one's own immediate family.

The eighteenth century is declared to be famous because it made seduction unfashionable, the nineteenth century probably deserves a like title for having made drunkenness unfashionable, and it is conceivable of the twentieth century that it should make fornication unfashionable. We still, however, hear of cases of seduction, though it went out of fashion 200 years ago; one occasionally sees a drunken man, and I do not believe we could attempt an immediate angelification of the human race; but what we want to do is to open peoples' eyes, to give everybody a fair show, and not to continue the accepted policy of silence, that permits a very large proportion of the population to fall prey to diseases, which are very grave in many cases, which cost many lives, and which cost the health and happiness of many people whom they do not kill. We wish to give these persons a fair chance to know what these things are, and that is what we stand for.

In the first place we want to protect the wives of married men, and the way we want to protect them is through the physician. We think, and I believe you will agree with me, that it is impossible for a man who has had gonorrhea, or who has had syphilis, to be absolutely certain that he is no longer infectious, unless he has a doctor's certificate to that effect. I regret to state that the doctors are not infallible. I unfortunately am not infallible myself, but the best we can do, and we can do it pretty well, is to impress upon our gonorrheal patients and our syphilitic patients when they come to us at the very flush of the disease, that they have now an infectious disease, and will never know when they are well of it until they have some reputable, competent physician's opinion upon that subject. If a reputable, competent physician tells them that they are well, they may marry with safety. Until that time, no matter if it is five, ten or twenty years after, they have no right to consider themselves safe to marry. If the doctors would make a point of doing that, it would cut down the misfortunes of married life tremendously.

In the second place I think the adolescent ought to have a chance. This is a very difficult question. We had a very interesting meeting upon this subject last month, in which it was the consensus of opinion, that the present system of ignoring matters of sex in the education of children was entirely fatal and fallacious. To suggest an improvement on the present system is, of course, not at all easy. I think it is obvious

(for all those to whom I have spoken on this subject, seem to agree very frankly with my point of view), that if the boy can be carefully watched by his father, and can be instructed according to the lights of the father, or, if necessary, by his physician, as to matters concerning his sexual function, as to the normality of his sensations, and can be educated a little ahead of the education which he would naturally receive from a secret source, from his boy friends, it could not fail to help him to be a little more decent citizen than he is otherwise likely to grow up to be.

As for the girls, I confess I was amused to notice that the speakers on this subject talked very carefully when it came to the girls. They did not know and they were not prepared to express an opinion. But at the end of that meeting the Society adopted a resolution to the effect that it wished to go on record as believing that continence in the male was entirely compatible with health. That might seem a very elementary thesis to some of you, but it is entirely against the opinion of a great proportion of the population.

Another set of people we are after are the working classes. There you cannot invoke the father and mother (the father for the boys and the mother for the girls), because generally speaking they are people who are cast upon the world to look after themselves, and they are very often subjected to dangers that they do not know anything about, and they have the most extraordinary and unfounded notions upon this subject of venereal disease. Some of you may be surprised to know that a very large proportion of the lower classes are firmly convinced, that if they suffer from gonorrhea and can have intercourse with a virgin of the opposite sex, they will get rid of the gonorrhea. You can scarcely imagine anything more ruinous to the virtue and health of the community than such a doctrine as this. However, it is very widespread, and one encounters it constantly in hospitals and clinics, and by the same token a great many little boys and girls are infected by gonorrhea on that one belief alone, because these wretched adults fancy they can get rid of their disease by transferring it to a virgin.

The women of the working classes, while they are very wise nowadays, and know a great deal more about life than their predecessors of the last generation, still they are quite ignorant of the venereal diseases to which they are constantly exposed. Though they suspect the danger of

sexual contamination, they do not realize the possibilities of contamination simply by the kissing, for instance, which they practice so freely. A great many young men go around kissing and hugging them at Coney Island and other places, who are afflicted with mucous patches, so that we see in our clinics quite a constant stream of young women with chancres upon the lip, who have been infected in a way entirely innocent.

Then the soldier and sailor: Dr. Seaman, who has just become a member of the Society, has written me a letter, in which he said that in the United States Army last year 28 per cent. of non-effectives and 18 per cent. of discharges were directly referable to venereal disease, and yet there is absolutely no instruction upon this subject given to the soldiers and sailors, and no account is taken of it. As a matter of fact it is quite impossible to prevent venereal disease in the army and navy. In fact on the continent of Europe, where the large standing armies are always kept in barracks, this side of the subject is a very important one. I confess that I do not know the best way to go about attacking the subject from our point of view. They have formulated and have a system in force, which I do not think is entirely applicable here, but I hope we shall hear more about that at our February meeting when the subject is to be discussed.

Such are some of the subjects which we are taking up at present, and you notice they are all of the educational kind. These four subjects, the adolescent, the working class, the soldier and sailor and the husband and wife are subjects we are discussing successively at different meetings throughout the year and trying to get some light on the subject. Our idea is that every one should come forward who has anything to say, and say it. Certain papers are prepared and discussion is encouraged. We feel that a great deal has been done in a vague and general way, by books and pamphlets expressing individual opinions, but there is not what you might call a central bureau for the collection of these opinions and for the interchange of sound and sober views on the subject. It has been wittily said that this propaganda is likely to be followed by improper geese, but I do not think that we are in immediate danger of running amuck, for we have a sober constitution and a conservative management.

So much for what we mean to do. What has been done I can dismiss with very few words. There have been first of all, and most important of all, two International Congresses on the prophylaxis of venereal disease, both at Brussels,

in which subjects akin to those mentioned this evening have been discussed. A society of social and moral prophylaxis has been in existence in Paris for four years, which publishes a bulletin, and which has among its members everybody in Paris who is in any way interested in social works. It has Government officials, senators, generals and admirals, rabbis, ministers and public men of all sorts. Indeed, I ran over the list of names, and among the first hundred I found only forty doctors, so that you see it is by no means a medical society. We do not want to make ours a medical society; we want to make it a general society, and are using every effort to get important people in the community who are interested in educational work to join with us and give all the enthusiasm they have to spare.

There has been a society in Berlin for a couple of years, and that society is so prosperous it publishes two journals, one for the medical profession and one for the world at large. This has been disapproved of in other countries.

Then, nearer home we have the committee on prophylaxis of venereal disease of the American Medical Association, which, in 1904, reported on these subjects, and the Committee of Fifteen in Parkhurst's time went over the subject carefully and got out a report called the "Social Evil," which covered a large portion of this subject very thoroughly and very well.

The Washington State Association has followed up the lead of the American Medical Association and has published circulars for distribution. I do not entirely agree with their form of doing the thing. They have published a circular describing the various diseases. I am afraid of printed matter to be spread among the people at large. I am afraid it would do as much harm as good. However, very good authorities disagree with me on that subject.

Curiously enough we seem to be at a time which is psychologically right for this sort of thing. Every one who manifests an interest in this sort of thing tells me they have been unable to make any headway. Dr. Morrow tells me that ten years ago, when he first tried to raise some enthusiasm on this subject, he was unable to get any hearing before the County Society or Association in New York, and was unable to get any articles printed in any of the medical journals to which he offered them, and yet within the past year there has been more printed on the subject of the prevention of venereal dis-



ease than had been printed in the last twenty years in medical journals.

I got a letter the other day from the President of the Section on Public Hygiene of the American Medical Association. He said that he had prepared an article, which he had tried to get published for two years, and had been unable to get it published anywhere. This year he has had it published and it has met with interest.

#### *Discussion.*

DR. WATERS, Pastor of the Tompkins Avenue Congregational Church, said that he was like the ministers that Dr. Keyes had described. Certainly he could not speak about the technical or scientific side of the question, and when it came to the question of what we are going to do about it he did not want to speak at all. He wanted to ask questions. So far as the facts revealed by the papers were concerned, he said that to him they were very largely astounding. He had no dream or imagination that any such percentage of the population were afflicted in such a way and to such a degree. The question presented itself to him in a different phase somewhat. As he studied people and bodies he often wondered about their moralities and whether they were living pure lives. Dr. Keyes, he said, had been able to give percentages about persons afflicted with venereal disease, but he would like to ask him if he had any idea as to what per cent. of people in society in general did not live what we call moral lives. He wondered as to how large a percentage of people who are living in this way contract these diseases. The papers have been full during these few months of that problem here in Brooklyn as it touches the young people of our city. He had an idea that there is an increasing laxity on the part of people who are in so-called respectable and good society. That might be because he spent a good deal of his life in the country, where they have puritanic ideas, or it might be because he was getting old, but it seemed to him, although we have no confessional in the Congregational Church, that among young people there is a wonderful deal of knowledge, not of the kind that the doctor had talked about, but of a prurient and curious sort. He had that opinion; he did not know whether it was true or not.

He had a notion, too, that among a good many people with whom he came in contact the ideals of virtue after all are held rather carelessly. Every now and again one comes into a confidence that makes him open his eyes in regard to certain people.

So far as his duties as a father were concerned, he listened very carefully as to what ought to be done with one's son. He certainly thought that was practicable, but he would like the doctor to tell at what point the minister could touch a subject of that sort. He could not preach about it. He would like to know how he could get up enthusiasm on questions of that sort. He did not think it does any good to talk without knowledge on the matter, and he had no knowledge of it. He would also like to ask Dr. Keyes what he would suggest (because his Society is working on these lines) would be a practical thing for the Church to do. Should the Church not teach the children, taking up the same problem that the principal of the school does? Should the Church in some way try to induce parents to give thought and care to these questions, and how could it be done? He was here to learn and ask questions. He said that he held up his hands, and did not know.

DR. C. H. LEVERMORE, President of Adelphi College, said that he would like to speak about the subject, and yet was reluctant to do so, because he felt himself to be hampered by his ignorance. He thought that probably we should all agree that the ideal place for prophylactic measures was in the family, in the home always. If we could manage this matter as we would like to, we would have every father and mother become the teachers of their sons and daughters, and we would not carry the responsibility anywhere else. He supposed that we are also all agreed that that cannot be done. There are only a few families wherein this kind of instruction will be or can be given. In that connection, he would suggest a reply to Dr. Waters' question. It seemed to him, that the Church *can* do something in training the fathers and mothers, who are connected with the Church and come under its constant influence, to give physiological instruction to their sons and daughters. They can do it with a Christian spirit, with a spirit of devotion and of fidelity to parental duty. The Church can teach parental duty to people who need that instruction within its own borders, but the Church is not able to influence the great company of fathers and mothers. They are out of its reach. Therefore, while the Church can do a great deal, it cannot meet the problem of the education of the young in sexual physiology.

If the Church can do but little, and families, whether under Church influence or not, are unfitted to give the desired instruction, there will be a great body of young people who will get their

knowledge of sexual physiology, and their knowledge of diseases that abuse of sex leads to, by blundering into the subject, as Dr. Keyes said, by the utterly improper, uninstructed, unwise character of their comrades. It is the street that is educating our young people in these things, and it always has been educating them. If we exclude the possibility of reaching the great mass of them by either the family or the Church, then the question comes up at once, "Can the school do it?"

The speaker supposed we must all admit that the place where the school ought to do it is in the grammar school, since that is where the great army of our children are, in both city and country. Only a few reach the high schools; a small fraction of that body goes into the colleges. In the colleges they are likely to get some instruction, but for the man it is too late. So far as general knowledge of sexual matters is concerned, men who enter college are already informed. If the students receive, as they do in some colleges instruction during the Freshman year upon venereal disease, the speaker did not think it deters a single mother's son of them from going straight on with any madness or foolishness that the emotion of the moment may suggest. It is different with the women in colleges. They come there, great numbers of them, without any knowledge of such matters, or but little. In the college with which he was connected, he has had a course of lectures on sexual physiology given to the girls in each Freshman class by a lady physician, a member of this Society. He knew that she takes up the subject from the right point of view and in the right spirit. She begins with the central question of motherhood, and when she finishes her course of lectures he was sure that the young ladies who attended them had had the whole subject, so far as it concerns women, presented to them in a clear light, and with a combination of scientific information and of Christian morality, faith and courage for the future. He believed that something of that kind would be the right thing to give to young ladies in women's colleges everywhere. Young women who come to college are usually the representatives of a sheltered class, but among the girls of the country there are a great many who get their information as early as the boys do and from similar sources. Therefore there are a great many girls who need a prophylactic education in sexual physiology and need it at an early age.

The speaker said that the place in which to

reach them, if the school can do it at all, is in the grammar school. It is in the years from 9 to 12 that the knowledge is obtained and the damage is done, if it is done at all. He was thinking not of the physical damage, so much as he was of the spiritual damage. The moral and intellectual damage all together. The boy or girl who gets that infection in the mind, as so many of them do, before the age of 10 or 12, already has venereal disease in the mind and in a most dangerous form. He thought the schools might safely take hold of the problem under certain restrictions. He was inclined to offer these suggestions. In the first place the regular teachers can not give this instruction. The teachers in the grammar schools can not present these subjects—can not present them either to boys or girls—because a great majority of the teachers have not been trained to do it, and because most of them are unmarried women. In the second place, if these subjects are to be presented to children of that age, they must be presented to small classes, not to large ones. The teacher must have no more students before him or her at a time, than that teacher, man or woman, can bring easily within the circle of a persuasive personality. It must be a small coterie of hearers. You cannot tell of such things before a large audience of children. It would lead to unworthy amusement. Thirdly, the girls would have to be met by a woman teacher, separately, the boys by a man teacher, separately. If such a plan were feasible in a great city, only the central authority could bear the responsibility of selecting two or three people, who could go about among the schools on a prepared schedule of time. The hour would probably have to be after school session, and for such children as could be brought together then. He said "*Could* be brought," because there is the fourth point. It would not be possible now to give this instruction to *all* the children in the grammar school, because we should run against a sentiment among parents bitterly opposed to any such instruction. It would be unwise to attempt to compel the child to be present. We should have to have optional classes where the girls and the boys could go, or should be allowed to go, unless the parents objected. If the parents objected, in the present state of public opinion and intelligence on this subject, it would be foolish to try to overcome that negative.

Moreover, such instruction could not be given, as a usual thing, advantageously, by doctors. They are not often trained to teach, and it would be difficult to find persons in the ranks of teachers



who are well enough trained to present such a subject. There is some study of physiology in the grammar schools. It is superficial in character, and relates to personal hygiene. That might be made more attractive, and take the form of a serious study of the human body. At the right time, the right person could present to such children as could be reached, as a sort of addition to that physiological study to the girls, the topic of motherhood and its organs, and to the boys, the topic of fatherhood and its organs. Such talks would be the natural development, the outcome of the study of the human body. Information could thus be put in such a guise that if it went from the right persons in the right way with the right words, it would be very effective. It would do much to develop in young people such an understanding of the real character of reproduction, that the smutty and idle chatter of the street would fall away from them, and they would think of sexual physiology along the lines of sober common sense.

The speaker believed that the members of this Society for Sanitary and Moral Prophylaxis, and their associates who believe in the possibility of subduing this epidemic of foolishness and ignorance among the children, should try to push prophylactic instruction under these conditions into some place in the grammar schools. He thought that such teaching is needed more in the country than in the city, but, after all, the city problem is the one in which we must be most interested. The city grammar school is undoubtedly the place where the experiment can begin, if it can begin anywhere, because here we have perfectly organized schools and a strong directive central power, and the ability to find, if careful search is made, competent instructors of both sexes.

*To be continued.*

Carl Beck, in "Skiagraphic and Therapeutic Factors in Tuberculosis of the Bones and Joints, with Some Reference to the Iodoform Treatment" (*New York Medical Journal*, Nov. 18, 1905), says: "The brutal dictum that the successful treatment of tuberculosis is more and more a question of the purse is not without foundation, which is so much more deplorable, as the poor form nine-tenths of the cases. My cases, largely from the poorest parts of New York, demonstrate that a great deal can be done by the injection treatment, combined with general treatment. I instruct the relatives of the patients thoroughly about the significance of the disease and give them sanitary instructions. They must understand why free exposure to air and sunlight is more beneficial for the patient than

the careful protection from draughts. He should sleep in the best room, instead of the darkest corner of the house.

#### PROGRESS IN OPHTHALMOLOGY,

JAMES W. INGALLS, M.D., AND JOHN OHLY, M.D.

##### EYE COMPLICATIONS OF CEREBRO-SPINAL MENINGITIS.

Uhtoff (Ophthalmological Congress, Heidelberg, August, 1905,) reports the following eye complications found in examination of one hundred and ten cases of cerebro-spinal meningitis, during an extensive epidemic, affecting thousands of people, especially children: Optic neuritis, 17 cases; metastatic ophthalmia, 4 cases; keratitis, 3 cases; conjunctivitis, 1 case; muscular anomalies, 18 cases; myosis, no reaction to light, 5 cases; partial mydriasis, no reaction to light, 3 cases; nystagmus, 8 cases.

##### EFFECT OF ROENTGEN RAYS ON TRACHOMA FOLLICLES.

Stargardt (*Zeitschrift für Augenheilkunde*, October, 1905,) relates his experiments and results in treating trachoma follicles by use of Roentgen rays. After protecting the eye-ball and skin, the follicles of the everted upper lid were exposed for 12 minutes at a distance of 5c.m., no ill effects resulted to the eye-ball. One treatment was given and excision of the follicles performed after intervals of 12 hours, 16 hours and 2 weeks. For the saks of comparison, follicles were excised from the lid of the other eye, which was also diseased, but was not treated by X-rays. Microscopic findings showed that follicles had become smaller. Microscopically, the follicles first excised showed the most shrinkage, and other disintegrating changes, but the last excisions showed the least changes. There is no doubt about the action of the X-rays on the trachoma follicles. Changes are similar to those occurring in the lymph tissue. Whether this change is permanent is still doubtful. This form of treatment will probably have very limited use, compared with operative procedures.

##### ALYPIN A SUBSTITUTE FOR COCAIN.

Jacobson (*Therapie und Hygiene des Auges*, September, 1905,) relates his experience of three months with the use of Alypin, the solution being of the same strength as cocain. Anesthesia is complete in two minutes and lasts ten minutes. This drug does not dilate the pupil or affect accommodation, has no influence on the tension, causes very slight transitory hyperemia. Instillation causes no sensation of burning or of dryness. Alypin is especially valuable for the

removal of foreign bodies; no toxic effect has been observed from its use.

#### MENINGITIS FOLLOWING EXCISION OF THE EYE-BALL.

Marshall (*Ophthalmoscope*, December, 1905), discusses the question of enucleation for panophthalmitis. It is conceded that fatal meningitis may follow enucleation of a suppurating eye-ball. On the other hand, fatal meningitis may occur with panophthalmitis even when no operation has been done. In proof of this statement, two cases are cited. It is maintained that the patients who die from meningitis after an enucleation, do so because the disease developed by reason of long delay of operation. The plan of incising the eye-ball or of scraping out the contents is not regarded with favor. "To leave such an eye (suppurating) is opposed to all sound principles of surgery, and reminds one of nothing so much as the antiquated, though popular, notion that an abscess had best be left to burst itself, and that a tooth causing an alveolar abscess should not be removed until the swelling had gone down. For some years past I have never seen a suppurating eye-ball without advising its immediate removal, and of all the hundreds that have come under my notice in this condition, I have never once regretted the opinion I have held."

#### INJECTIONS OF PARAFFINE IN THE NASAL REGION.

Rohmer (*Annales D'Oculistique*, September, 1905,) mentions some unfortunate results from use of paraffine. Special attention is called to reports of a number of cases of blindness caused by injecting paraffine over the nose. A case is related in which paraffine was used to correct a nasal deformity. Several injections, at intervals of two or three weeks, were administered without any mishap. However, at a subsequent sitting, the patient was seized with a severe pain in the left eye and vision was immediately lost. A short time after, an examination by an oculist showed the presence of an embolism of the central artery of the retina. Case was seen by Rohmer about one year later; blindness still continued. In order to avoid complications, three points are essential: The degree of fusion of the paraffine, the quantity injected at one seance, and finally, the isolation of the field of operation. Paraffine should be fusible at 41 degrees to 42 degrees. Maximum dose should be one centimeter or one centimeter and a half. Field should be limited by fingers of one or more assistants.

## Brooklyn Medical Journal.

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### A NEW DEPARTURE IN MEDICAL TEACHING.

The faculty of the College of Physicians and Surgeons of New York has extended an invitation to Professor Biggs of the New York University Medical College to deliver a course of lectures to the students of the former institution.

The departure is significant in the history of American medical schools. It is not that the courtesy shown by the faculty of one medical school to that of another is especially worthy of remark, but that the incident denotes the sincere effort of medical educators of this country to supply to the student every facility and advantage and to arouse in him an enthusiastic devotion to the science of medicine.

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### A TEACHING POSITION FOR DR. WOODBURY.

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Cornell University Medical School has organized a new department of public hygiene and sanitation in which Dr. John McGaw Woodbury, Street Cleaning Commissioner of the City of New York, will be the chief. His lectures will deal with the municipal problems which he is daily encountering, among which the sanitation of cities, the disposition of garbage and refuse, public water supply and other similar topics will naturally receive an amount of attention commensurate with the practical experience of the lecturer in these departments of public hygiene.



### BROOKLYN'S MUNICIPAL ELECTRIC LIGHTING PLANT.

The new lighting plant established through the efforts of Dr. Woodbury is commendable from many points of view. Through its agency not only is the disposal of a considerable amount of the city's waste accomplished in a strictly sanitary manner, but it is done at a saving instead of as heretofore at a large expenditure of the city's money.

The dumping of garbage and waste at the mouth of the harbor which was practiced for many years has but lately been abolished. Its reduction by cremation at various plants, while infinitely superior from a sanitary and economical standpoint, still entails a deficit in the city's list of annual expenditures.

We mention Dr. Woodbury's introduction of an economical, even profitable, disposal of garbage and waste only to commend it. The new plant may be praised as a demonstration of what an able and enthusiastic official may accomplish for his city. The fact that the moving spirit in the work is a physician, renders it no less a pleasure to commend the successful installation of the new municipal plant.

### OBITUARIES.

#### EZRA HERBERT WILSON, M.D.

The science of bacteriology has lost an earnest worker in the death of Dr. Wilson. Dr. Wilson was born in Port Jefferson, Suffolk County, Long Island, on the 24th of November, 1858, and died in Brooklyn, New York, December 19, 1905. His father was Gilbert Wilson, of New Jersey, and his mother, Caroline Hart, of Brooklyn, New York.

Dr. Wilson was educated in the public schools of Brooklyn and at Neshanic Institute, New Jersey. In 1879, he began the study of medicine under the direction of R. E. Van Gilson, M.D., and matriculated with the College of Physicians and Surgeons, receiving the degree of M.D. in the class of 1882. This was followed by a position as interne in St. Catherine's Hospital until 1884, when, becoming interested in pathology and bacteriology, he availed himself of post-graduate instruction at the Laboratory of the College of Physicians and Surgeons, New York, Pasteur Institute, Paris, Hygienic Institute, at Hamburg and Berlin.

Dr. Wilson has held the following medical positions: Director United States Army Laboratory in Chicago, 1893; Chief of Bureau of

Pathology, Bacteriology and Disinfection, Brooklyn Health Department, 1894-98; Director Department of Bacteriology, Hoagland Laboratory, 1893-1905; Consulting Bacteriologist Brooklyn Health Department; Pathologist to St. Catherine's, St. Mary's, Kings County, German and Eastern District Hospitals. Dr. Wilson was a members of the Medical Society, County of Kings, 1883-1905; Brooklyn Pathological Society, 1885-1905; President in 1891; Medical Society, State of New York, 1895-1905; charter member of the Associated Physicians of Long Island; fellow of the Royal Microscopical Society, London; charter member of the Society of American Bacteriologists; member of the American Public Health Association; Hon. member of the German Medical Society and the Association of Military Surgeons, and the Hanover Club.



EZRA HERBERT WILSON, M.D.

#### MEDICAL PAPERS.

Technical Methods for the Central Nervous System.

The Production of Diphtheria Antitoxine in the City of Brooklyn.

A Proper Method of Room Disinfection.

An Incubator for the Maintenance of Constant Low Temperatures.

A Method of Recording Bacterial Measurements.

Notes on the Reaction at which the Maximum Growth of Bacteria occurs in Liquid Media.

The Bacillus of the Bubonic Plague.

Immunity.

The Importance of Bacterial Examinations of Public Water Supplies.

The Bacteriology of Appendicitis.

The Bacteriology of Yellow Fever.

The Bacteriology of Asiatic Cholera.

Contributions to the Reports of the Brooklyn Health Department, 1894-98.

Standard Cultures and the Methods of Using Them in Disinfection Experiments.

Methods of Diagnosis of the Bubonic Plague.

The Diagnostic Value of the Widal Reaction.

Description of the Disinfection System of Paris.

WILLIAM SCHROEDER, M.D.,  
Chair. Hist. Com.



EDWIN REYNOLDS.

EDWIN REYNOLDS, M.D.

Dr. Reynolds was born in Warwick, N. Y., in 1846, and died in Brooklyn, N. Y., December 15, 1905. His father was Abram Reynolds, M.D., and his mother, Katherine Elizabeth Dubois, both of New York.

Dr. Reynolds' early education was received in the schools of Warwick, his medical education at the College of Physicians and Surgeons, New York, graduating M.D. in the class of 1877.

He attended a post-graduate course at the Escole De Medicine, Paris, returning to Brooklyn in 1878, where he remained in private practice until his death. Dr. Reynolds was physician to the Home for Consumptives from 1883 to 1905, a member of the Medical Society, County of Kings, 1878-1905; New York Physicians Mutual Aid Association, New York State Medical Association, American Medical Association and the New York Medico-legal Society.

He was also a member of the Psi Sigma Rappa Society, Oxford Club, Merchants Lodge No. 709, F. A. M.; Masonic Veterans Association of Brooklyn, Burnside Council No. 625, R. A., and Lawton Council No. 119, Jr. O. U. A. M.

WILLIAM SCHROEDER, M.D.,  
Chair. Hist. Com.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Charles Jewett, of 330 Clinton Avenue, announces the marriage of his daughter, Alice, to Mr. John Theodore Schwarte, on January 23, 1906.

Mrs. Henry Mott Allen announces the marriage of her daughter, Mrs. Mary Louise Hayes, to Dr. William Whitehead Gilfillan, on January 25, 1906, at Grace Church, Newark.

Health Commissioner Darlington has appointed Dr. Traverse R. Maxfield, of 452 Ninth Street, Health Officer of this Borough in place of Dr. Thomas R. Fogarty, of Union Street.

The Medical Society of the State of New York celebrated its centenary by a banquet at Odd Fellows' Hall, Albany, January 31st. A centennial history will soon be issued.

*The Philippine Journal of Science* is the title of the new journal to be published by the Bureau of Sciences of the Government of the Philippine Islands. This publication will include original articles by the members of the staff of the Bureau of Science, as well as scientific papers submitted for publication by other officials of this Government. The subscription price will be five dollars,



the journal appearing approximately once a month.

The Williamsburgh Hospital gave a musicale and dance at the Pouch Gallery, February 5th, for the benefit of the hospital. Comptroller Metz opened the entertainment with an address.

Baron Takaki, Surgeon-General of the Japanese Navy, has arrived in San Francisco and will proceed to the Atlantic Coast. He will deliver at Columbia College, New York, and Jefferson Medical College, Philadelphia, a series of lectures on military sanitation. His son is studying finance and commerce in the University of Pennsylvania. The Baron is credited with having arranged the admirable hospital methods which were so conspicuous in the war with Russia. He discovered a method of preventing beri-beri years ago.

The 10th annual meeting of the Long Island Alumni Association of the College of Physicians and Surgeons, N. Y., was held at the University Club, Wednesday evening, January 17th. The President, Dr. Henry G. Webster, read an interesting historical paper on Benjamin Rush, M.D., which was heartily appreciated by those present. A dinner and social session followed. Officers for 1906 are President, Dudley Roberts; Treasurer, Addison Raynor; Secretary, Walter Sherwood, and Trustee to succeed John D. Rushmore, Henry G. Webster.

Dr. Mary Hayward died at her home, 498 Putnam Avenue, Brooklyn, recently, aged 77 years. She entered the medical profession fifty years ago. She leaves a daughter, one granddaughter and two great-granddaughters.

Harvard University will receive a legacy of \$50,000 for its medical school under the will of Dr. George S. Hyde, which was filed on December 22d. The legacy is to be turned over to the college at the death of Mrs. Annie M. Sargent, a sister, and Franklin P. Hyde, a brother of Dr. Hyde, out of the residue of his estate, the income of which is to be paid to them while they live. The gift to Harvard is in trust to use in whatsoever way the trustees of the college may deem best for the medical school.

Dr. Charles Eliot Norton of Cambridge, man of letters and translator of Dante's "Divine Comedy," has joined forces with Miss Anne S. Hall, of Cincinnati, and with Mrs. Maud Ballington Booth, in their campaign for the killing off of the hopelessly insane, hopelessly diseased and victims of accidents. He says, among other things, in a communication to Miss Hall: "Setting aside all doubtful cases, no right thinking man would hes-

itate to give a dose of laudanum sufficient to end suffering and life together, to the victim of an accident from the torturing effects of which recovery was impossible, however many hours of misery might be added to conscious life by stimulants or surgical operations.

"Nor should a reasonable man hesitate to hasten death in the case of a mortal disease such, for example, as cancer when it has reached the stage of incessant severe pain and when the patient desires to die.

"The prolongation of life in such a case by whatever means, is mere criminal cruelty.

"Or take another instance, that of an old person whose mind has become a chaos of wild imaginings productive of constant distress not only to the sufferer, but to all who live with and attend him. The plain duty in such a case is not to prolong, but to shorten life.

"It is not to be hoped that a superstition so deeply rooted in tradition as that of the duty of prolonging life at any cost will readily yield to the arguments of reason or the pleadings of compassion, but the discussion of the subject in its various aspects may lead gradually to a more enlightened public opinion and to the consequent relief of much misery."

Interesting reading is to be had in glancing over the recent awards of the Nobel prizes for 1905. These five annual prizes, given by Alfred Nobel, of \$40,000, are bestowed "for the most important researches in physics, in chemistry, in physiology or medicine, for the most distinguished work in the field of literature, and for the best effort toward the fraternity of nations and the promotion of peace." The peace prize goes to Baroness von Luttnar, whose novel, "Die Waffer Nieder!" ("Ground Arms"), published ten years ago, supplied the impulse which resulted in the birth of the Hague peace tribunal. Professor Robert Koch, of Berlin, wins the award in medicine, for the efforts in preventing tuberculosis, while Professor Adolph von Beyer wins the chemistry prize. To Professor Lenard, of Kiel University, is given the physics prize, because of his researches into the nature of cathode rays. Henry Sienkiewicz, the Polish novelist, is awarded the literary prize. In the long list of previous prize winners not one American name appears. Among all thirty prize winners Germany heads the list of nations with seven, France six, Great Britain four, Switzerland and Holland three each, Russia two, and Norway, Sweden, Denmark and Spain one each. The *Independent* remarks: "The result tends to justify the boast

of Kaiser Wilhelm that Germany is the intellectual leader of the nations."

*Mortality from Typhoid Fever and Whooping Cough Compared.*

ANNUAL DEATHS IN BROOKLYN FROM

	Typhoid Fever.	Whooping Cough.
1868 .....	108	191
1869 .....	96	193
1870 .....	111	71
1871 .....	92	110
1872 .....	149	96
1873 .....	103	136
1874 .....	81	130
1875 .....	102	161
1876 .....	97	190
1877 .....	82	118
1878 .....	59	195
1879 .....	59	204
1880 .....	71	111
1881 .....	99	118
1882 .....	93	249
1883 .....	92	132
1884 .....	107	222
1885 .....	153	157
1886 .....	123	260
1887 .....	143	59
1888 .....	153	194
1889 .....	161	281
1890 .....	182	238
1891 .....	180	140
1892 .....	162	192
1893 .....	179	261
1894 .....	159	243
1895 .....	173	263
1896 .....	163	179
1897 .....	173	164

GREATER NEW YORK.

	Typhoid Fever.	Whooping Cough.
1898 .....	676	716
1899 .....	514	546
1900 .....	718	584
1901 .....	727	289
1902 .....	764	606

On December 19, 1905, occurred the first meeting of the interne anesthetists of Greater New York at the Long Island College Hospital. The affair was in the nature of a conference, invitations having been mailed to each hospital in all boroughs to send their present anesthetist, and, if possible, the interne who is to follow him. Personal invitations were extended to Dr. Buist, of the Brooklyn, Dr. Hotchkiss, of St. John's, Dr. Langstreet, of the Norwegian, Dr. Woolsey, of the Bushwick, Dr. Neilsen, of St. Christopher's, and Dr. Erdman, of the Long Island Col-

lege Hospital. Dr. J. T. Gwathmey was also asked to demonstrate the use of the new vapor inhaler which he presented at the late Portland, Oregon, meeting. A practical demonstration of this inhaler was given and its practical and successful employment demonstrated. The attention of the members of the visiting surgical staffs of all our hospitals is asked that they will co-operate with the visiting anesthetist to urge the internes serving as anesthetists to actually participate in these meetings. The art of anesthesia has developed wonderfully in the past five years, and all internes may richly take advantage of the experience of those who have been working in this special line, and may also have the fact impressed upon them that the administration of an anesthetic is a most important duty, and one that cannot be too lightly considered. It is an unfortunate but true statement that most internes who are serving as anesthetists become careless, and when admonished take the reprimand as a personal affront and a distinct reflection on their skill. Surgical shock and post-operative pneumonias are sometimes directly correlated to a careless administration of the anesthetic. The next conference will be held at the Bushwick Hospital through the invitation of Dr. Woolsey.

I am in receipt of the following letter from Professor Joseph H. Raymond, of the Long Island College Hospital:

The Public Health Law of the State of New York by which, among other things, the practice of medicine is regulated, provides in Section 145 that "The Regents shall admit to examination any candidate who \* \* \* submits satisfactory evidence \* \* \* that he \* \* \* has studied medicine not less than four full school years of at least nine months each, including four satisfactory courses of at least six months each \* \* \* ." The same section further provides that the Regents may accept as the equivalent of the first year of the four "Evidence of graduation from a registered college course, provided that such college course shall have included not less than the minimum requirements prescribed by the Regents for such admission to advanced standing." In a handbook issued in July, 1905, entitled "Higher Education, Medicine, Law, Ordinances and Regulation," the State of New York Education Department states that "Evidence of graduation from a registered college course in lieu of one year of study in a medical school permitted by the statute is at present inoperative, as the minimum requirements for such admission to advanced standing have not been determined."



In November, 1905, a conference was held in Albany, under the auspices of representatives of the State Education Department, of representatives of the State Board of Medical Examiners, and of the medical colleges of the State, at which a resolution was passed requesting the First Assistant Commissioner of Education, Hon. Howard J. Rogers, who presided at the conference, to appoint a committee to frame a course of study and syllabus for the medical electric course to be adopted by arts colleges for the junior and senior years, and to be adopted by medical schools as equivalent to the first year in medicine. Commissioner Rogers has just appointed the following committee: Dr. Egbert Le Fevre, University Bellevue Medical College; Dr. J. H. Raymond, Long Island College Hospital; Dr. William H. Ring, New York Homeopathic Medical College; President Rush Rhees, University of Rochester; President George E. Merrill, Colgate University; Dr. Albert Vander Veer, Albany, N. Y.; Dr. Howard J. Rogers, First Assistant Commissioner of Education.

### BOOK REVIEWS.

**OPERATIVE SURGERY.** By Joseph D. Bryant, M.D. Fourth Edition, revised; N. Y. and Lond., D. Appleton & Co., 1905. 2v. 8°. Price: Cloth, \$10.00

The previous editions of this admirable work have already been reviewed in this journal. This edition contains two hundred and fifty pages and two hundred and thirty illustrations more than the preceding one. It has been thoroughly revised and brought completely up-to-date. It is hardly necessary to rehearse the excellencies of this work. A profound knowledge of anatomy, a broad experience in clinical surgery, a terse and lucid style in presenting the subject, combine to make this the best operative surgery by an American author.

WILLIAM FRANCIS CAMPBELL.

**ENLARGEMENT OF THE PROSTATE:** Its History, Anatomy, Etiology, Pathology, Clinical Causes, Symptoms, Diagnosis, Prognosis, Treatment, Technique of Operations, and After-treatment. By John B. Deaver, M.D., assisted by Actley Paston Cooper Ashurst, M.D. Phil., P. Blakiston's Son & Co., 1905. Col. front, 11, vii-xvii, 266 pp., 108 pl. 8vo. Price: Cloth, \$7.00.

This latest work on the prostate gland sustains the author's reputation for thoroughness, and clearness in the statement of matured opinion based upon a sound anatomical and pathological knowledge of the subject.

We note that the non-operative treatment has been discussed in greater detail than the operative relief of this condition. This may be wise when we consider that by far the largest proportion of cases will receive this is the appropriate treatment in actual practice.

The chapter on "Choice of Operation" shows a broad and comprehensive grasp of methods and routes. Whether it is preferable to operate by way of the perineal or suprapubic route is a matter of pathology, and not of individual caprice. The surgeon should be familiar with both methods, and choose that best adapted to meet the pathological conditions present, hence, the author lays down the general law that "the hard, small fibrous prostate will usually be very difficult of access by the suprapubic route, while the adenomatous organ will at times be so bulky as to absolutely prevent its removal through the perineum, except by fragmentation."

The author emphasizes the propriety of not doing too much at any one operation. The more experience we have in this class of cases the more we must realize how essential is the practice of this dictum.

Space forbids us to mention all the excellent features of this work. Suffice it to say that the author has done his work in a thorough, scholarly and interesting manner. The publishers have clothed the substance with a fitting garment.

WILLIAM FRANCIS CAMPBELL.

**BIOGRAPHIC CLINICS.** Vol. III. Essays concerning the Influence of Visual Function, Pathologic and Physiologic, upon the Health of Patients. By George M. Gould, M.D. Phil., P. Blakiston's Son & Co., 1905. viii, 516 pp. 6 pl., 8vo. Price: Cloth, \$1.00.

The third volume of Biographic Clinics is written in the entertaining style which characterizes the two preceding volumes. The Clinics include the lives of Symonds and Taine. Doubtless, these persons suffered much from eyestrain. What caused the eyestrain? The answer is not far to seek. Symonds was accustomed to write until one or two o'clock in the morning. Taine, at the age of eleven, "had devoured everything in the way of books, especially the classic authors." In the previous volumes we learn that George Eliot, when a child, "read everything she could lay her hands on." Jane Carlyle, when a girl of twelve, "often read a great part of the night."

Margaret Fuller, at fifteen, was accustomed to rise at five o'clock in the morning, study most of the time until eleven at night, and then "retire to write in her diary." In all these and similar cases it does not need a Sherlock Holmes to tell what caused the eyestrain.

J. W. INGALLS.

**A PRACTICAL TREATISE ON NERVOUS DISEASES.** For the Medical Student and General Practitioner. By F. Savary Pearce, M.D. N. Y. and Lond., D. Appleton & Co., 1904. Col. front., xxi, 401 pp. 8vo. Price: Cloth, \$3.00.

The author states that the object of this work is "to curtail details of doubtful points in neurology and in small compass, to make the most of practical facts, written for the student and general practitioner."

The table of contents is long, and embraces about every subject that could possibly be brought within the domain of neurology, from electricity and hydrotherapy to glass-blowers' disease, which he terms a neurosis. A review of the book discloses numerous errors of fact, diction, grammar and printing. Limited space forbids the criticism of more than a few of these errors taken at random.

Throughout the work there is used the old form of spelling, e. g., tumour, sæpta, coloured, etc. No system whatever seems to have been used in the compounding of words. A number of words occur which are not to be found in any dictionary. Here are a few examples: "Interannual segment," page 4; "neuroglia," used as an adjective, page 7; further on, "neurogliar," the correct adjectival form appears, while near the end of the book, apparently with the idea that "variety is the spice of life," we find "neuroglear" used in the same way. On page 2 one discovers the spelling "neuraxon;" on page 53, "neuraxone;" "asteriognosis," page 57. The author's memories of his early latin days are apparently somewhat obscured, for we find the following:

"Ligamentum patella," page 74.

"Erector femori," page 74.

"Nervi vasori," page 314.

"Amyl nitrate," page 121, where the author clearly means the nitrite. "Huntingdon's Disease or Chorca," page 284. That is not the correct way to spell the doctor's name; he himself spells it with a t, not a d. It seems odd that it should occur, but I have noticed the same error in a number of the recent medical works.

"Hystogenic zones," page 292.

"Tympanitis," page 304. There is, of course, such a word as tympanitis, but it means inflammation of the mucous membrane of the drum of the ear, and not intestinal distention by gas, which is the writer's meaning, as shown by the context.

Let us next consider a few errors of fact: On page

48 we are told that "the reaction of nervous tissue is alkaline chiefly owing to the production of lactic acid."

"Grasp is determined by the dynamometer. It is of use to compare palsy of the hand and forearm muscles."

"Herpes zoster frequently bilateral," page 120. On page 128, speaking of the optic nerve, he says: "A disease in one of the optic nerves and closely allied to diseases of the nervous system is cataract, since this insidious blinding of a person may lead to general nervousness and even melancholia, which should be looked after in all such cases with the idea for relief through extraction of the cataract."

Now for a few little gems of grammar and diction: "Neuroglia—its cells are very numerous and are finely ramified together, in the which they support the nerve cells," page 47. "Secretory phenomena and disturbances thereof, consists of, among others, retention, or too much elimination of certain secretions," page 61. On page 115, speaking of vertigo, he says: "Treatment—Quiétude is an essential. This will depend entirely on the cause." It is presumed that the author intends to convey the idea that treatment depends on the cause. We encounter the same ambiguity on page 117, where he says, in speaking of the treatment for insomnia: "Drugs—bromides—chloral, being cautious to guard the heart with the use of the latter drug." "Epilepsy may appear as real stigmata of a degenerative tendency," page 290. (Incidentally, it may be said that epilepsy is not mentioned at all in the index.) "Supportive measures is the first desideratum," page 286. "These echolalia or coprolalia may be manifested in sudden exclamations," page 287. "In the light attacks (petitmal) the patient may, with or without this precedent phenomena, pass into unconsciousness," page 291.

On page 156 we find one of the most glaring errors in the book. I presume it is a typographical mistake, but it is certainly a disgrace to any book, and shows the lack of careful revision of proofs: "In palsy of the circumflex from drug poisoning, it is also interesting to note that the supinator longus is not affected." "Causes of disease of circumflex nerve are legion. It may be due to lead poisoning when the posterior interosseous branch is most affected, wrist-drop being the only prominent symptom in such cases." "By far the most common cause is from pressure by the patient lying on his arm, or when it hangs over a chair, he being asleep, in alcoholic poisoning." "Finally catching cold may be the cause of neuritis and palsy of the circumflex."

F. C. E.

**THE NATIONAL STANDARD DISPENSATORY:** Containing the Natural History, Chemistry, Pharmacy, Actions, and Uses of Medicine. Including Those Recognized in the Pharmacopœias of the United States, Great Britain and Germany, with Numerous References to Other Pharmacopœias. In Accordance with the Eighth Decennial Revision of the United States Pharmacopœia, 1905. By Hobart Amory Hare, B.Sc., M.D., Charles Caspari, Jr., Ph.G., Phar.D., Henry H. Rusby, M.D., Joseph F. Geisler, Ph.C., Edward Kreamers, Ph.D., and Daniel Base, Ph.D. Phil. and N. Y., Lea Bros. & Co., 1905. iv. pp., 11., 1,860 pp. 4to. Price: Cloth, \$7.25, net; leather, \$8.00, net. Thumb-index, 50 cents extra.

This splendid volume—modern, practical, and authoritative—covers the entire range of pharmacy, materia medica, and therapeutics. Its varied and encyclopædic contents are made accessible by two indexes, one general and one therapeutical. It would be well if all who prescribe could and would consult the book more frequently than it may be feared that we do.

G. R. B.

**MATERIA MEDICA AND PHARMACY.** By Reynold Webb Wilcox, M.A., M.D., LL.D. *Sixth Edition, Based on the Fifth Edition of White & Wilcox's "Materia Medica and Therapeutics."* Phil., P. Blakiston's Son & Co., 1905. x, 624 pp. 8vo. Price: Cloth, \$3.00.

This book deals with pharmaceutical processes, preparations and their dosage, the art of prescribing, and the detailed description of remedies. The latter are separated for purposes of classification into inorganic, vegetable, and animal substances. It is an excellently prepared and useful volume. The author has also writ-

ten a companion treatise on pharmacology and therapeutics, the two forming a complete work on materia medica and therapeutics.

G. R. B.

**MOUSTIQUES ET FIEVRE JAUNE.** Par A. Chantemesse and Frédéric Borel. Paris, J. B. Baillière et Fils, 1905. 5-96 pp. 12mo. (*Les Actualités Médicales Series.*) Price: Cloth, Fr. 1.50.

The object of this monograph is to determine the sanitary regulations which are required to defend the European continent against yellow fever; these regulations to depend upon the modern view of the method of propagation of the disease by the *Stegomyia fasciata*. The main stress is laid upon measures to prevent the transportation of the disease or its insect carriers in shipping from infected ports.

G. R. B.

**THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA. 8 Decennial Revision.** By Authority of the United States Pharmacopœial Convention held at Washington, A. D. 1900. Revised by the Committee of Revision and Published by the Board of Trustees. Official from September 1, 1905. Phil., P. Blakiston's Son & Co., [c. 1905]. lxxv pp., 11, 692 pp. 8vo. Price: Cloth, \$2.50.

It goes without saying that this book should be in the hands of every practitioner in the United States.

G. R. B.

**PRACTICAL MEDICINE SERIES OF YEAR BOOKS, APRIL, 1903; VOL. V. Obstetrics,** Edited by Reuben Peterson, A.B., M.D. Chicago Year Book Publishers, 1903. 204 pp. 12mo. Price: Cloth, \$1.25.

In this volume of the Practical Medicine Series the subject of obstetrics is well collated and edited by Dr. Reuben Peterson, the Professor of Obstetrics in the University of Michigan. The same general plan has been followed as in the previous volumes, and the general practitioner is thus enabled to get the important and practical results of the year without the necessity of being familiar with French or German or the need of a host of medical periodicals.

Pregnancy itself receives the most attention. The use of some form of colpeurynter in the dilatation of the cervix for the relief of placenta previa is well described and illustrated by Dr. J. B. De Lee, of Chicago, and is of especial value. As usual, eclampsia is the cause of much discussion and the views of many writers are given. Each bases his conclusions upon his own experience with some form of treatment rather than upon general well-established facts; the net result is as before—the real cause of this condition remains a matter of conjecture. The section devoted to extra-uterine pregnancy, its diagnosis and treatment is of more real value, and in the complications of pregnancy caused by uterine, rectal and ovarian tumors much can be learned.

In the management of labor the question of position, especially in the case of very fat women, is well discussed, as is also the mode of inducing premature labor when need arises. Dystocia and rupture of the uterus also receive considerable attention.

Under the puerperium the puerperal infections is the chief topic.

In obstetric surgery the operation of hebotomy or pubiotomy as it was formerly called, will be new to most readers. The technique is given in detail and the final results of a series of such cases will be awaited with interest. Symphysiotomy has steadily declined in the estimation of most obstetric surgeons in the past few years, but in its place Cæsarean section has steadily increased in frequency; a number of reports upon the latter operation and its complications are given and various phases of its indications and limitations are well summarized. The instrument devised by Bossi for the mechanical dilatation of the cervix is described, and a number of cases in which this procedure was used are reported.

Altogether the little volume is an excellent one, and will be a practical aid to specialists and to general practitioners alike. While the details in any given instance are of necessity rather meager, the references are numerous and can be utilized for supplementary reading in any individual case.

HENRY P. DE FOREST.



# BROOKLYN MEDICAL JOURNAL

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No. 3

## ORIGINAL ARTICLES.

### A CASE OF CYSTIC DEGENERATION OF THE CHORIONIC VILLI.

BY A. ROSS MATHIESON, M.D.

The rarity of this disease and the unusual course of my case have prompted me to report it as my contribution to this evening's program.

Madame Boivin of Paris observed it but once in 20,000 cases, J. Clifton Edgar but four times in 15,000 cases and each of several authors but once in 2,000 cases.

In 1893, Mrs. M. consulted me at my office. She was 26 years of age, born in the United States, splendidly developed and with a clear family record.

She had borne three children and had had no interrupted pregnancies.

Her menstruation had ceased four months previously, and there was persistent nausea and vomiting, more distressing in the earlier part of the day, but in evidence at all times while awake.

After a month's treatment she was fully relieved. I did not see her again for five months, when she informed me that for more than a month she had been daily expecting her confinement.

Her abdomen was very large and on palpation gave the impression of hydramnios.

There was a mass in the uterus, but no foetal outlines could be demonstrated and auscultation gave neither foetal heart sounds nor placental souffle.

I concluded to empty the uterus of whatever it contained, and proceeded under an anesthetic to dilate the cervix, which was easily accomplished.

There was a well-formed membrane of the usual resisting character observed in normal pregnancy.

This I ruptured, allowing a large quantity of a gelatinous fluid to escape, which I did not secure for measurement.

In this fluid there were numerous small bodies resembling skinned grapes.

On introducing my finger into the uterus I found an extensive mass from which I scraped

a number of cysts which corresponded in appearance with those already expelled.

I broke this mass down and removed it with a large, dull curette.

The impression gained by digital contact with the contents of the uterus was that of an immense pedunculated mass or cluster, and the larger portions removed showed numerous cysts on a single stem, and all a part of the same general body.

Some of the cysts were larger than Concord grapes, while others were as small as a pea.

There was no evidence of foetal remains, but there was some membrane, which had the appearance of decidua.

I irrigated the uterus with a boric acid solution at 110 degrees.

There was no hemorrhage and but a slight discharge resembling lochia, which continued about the same length of time as in the normal puerperal state.

This patient made a complete recovery; has had three children since then, and is at this time in excellent health.

This case contrasts in some particulars with those described by various authors.

The symptoms up to the end of the fifth month were those of pregnancy.

Subsequent to that time and until the eighth month the only symptoms observed by the patient was the gradual enlargement of her abdomen. After that time there was no perceptible increase.

The usual symptoms of chronic degeneration of the chorion are those of pregnancy with rapid enlargement of the uterus, a bloody discharge and sometimes the escape of vesicles or cysts.

These hemorrhages come on suddenly about the beginning of the tenth week and recur at short intervals.

They do not resemble the menstrual flow nor other uterine hemorrhages; they are more watery, resembling current juice.

They have been attributed to breaking down of the cysts as the result of painless uterine contractions.

When these vesicles or cysts are discharged, the diagnosis is at once complete.

These hemorrhages may menace the life of

the patient by exhaustion or they may be so profuse as to prove rapidly fatal.

The causes producing cystic degeneration of the chorionic villi have not been satisfactorily settled.

Percy, Cloquet and Madame Boivin attributed it to invasion of the uterus by the echinococcus, hence the name hydatid mole.

Regnier de Graaf (1678) believed that the cysts were unfecundated ovules.

In the 16th century it was believed that each vesicle was a living embryo.

"Priestly quotes from Ambroise Pare that 'the Countess Margaret brought forth at one birth 365 infants, whereof 182 were males, as many females, and the odd one an hermaphrodite.

"Pepys records in his diary that he visited the home in which this remarkable delivery occurred, and saw the brass plates on which the children were carried before the Bishop of the diocese for baptism." (Footnote, p. 105, Hirst.)

Velpeau was the first to definitely state that the cysts were distended chorionic villi.

Virchow believed it was due to a deciduitis, Grailly Hewitt to foetal syphilis, other authors with equal persistence have given endometritis, uterine fibroids, maternal syphilis, carcinoma, tuberculosis and numerous other foetal and maternal causes.

The maternal mortality is said to be about 15 per cent., and the causes of death are hemorrhage, septic infection and uterine perforation, and peritonitis.

When a diagnosis can be made positively, the uterus should be emptied and the subsequent treatment should be the same as with a puerperal patient.

It does not seem necessary to state that curettage and all intrauterine operations should be conducted with caution and care, but in this condition more than ordinary care is requisite, as it has been found in some cases of this disease that the uterine wall, in circumscribed areas, was very much attenuated, and that in one instance an intrauterine douche had caused a rupture of the uterus with fatal results.

In conclusion: the points of special interest in my case were:—

1st. There was no hemorrhage at any time from the cessation of menstruation and none at the time of emptying the uterus, which seemed to me remarkable.

2d. The time from the cessation of menstruation to the emptying of the uterus was ten calendar months.

## THE RELATION OF BLOOD EXAMINATION TO SURGICAL DIAGNOSIS.\*

JOHN E. JENNINGS, M.D.

In a somewhat whimsical article entitled "On the Advantages of a Trace of Albumen and a Few Tube Casts in the Urine of Certain Men above Fifty Years of Age," Dr. Osler wrote some years ago: "I do not wish to minimize the importance of the information to be obtained by an examination of the urine, but we must ever bear in mind the adage, true to-day as well as in the times of the old Pisse prophets, '*Urina est meretrix vel mendax*'—'The urine is a harlot or a liar.'"

With the character of the urine we have nothing to do to-night, but at the beginning of our discussion of the value of blood interrogations in surgery I wish to draw your attention to certain analogies fairly to be drawn between blood and urine examinations.

The interrogation of both fluids gives us, in the words of Cabot, "a ready made diagnosis in a few diseases, sidelights on a good many obscure conditions, and the frequently great assistance of a negative report." Moreover, the blood has been made to share the urine's ancient reputation for insincerity by imputations neither scientific nor just. Because a given specimen of urine does not contain albumen or casts, one does not feel satisfied in the face of other evidence that the patient definitely has not nephritis, nor should undue importance be laid upon a single negative examination, for one characteristic, of the blood.

In the light of our present knowledge, the examination of the blood may be useful to the surgeon in the following groups of cases.

I. In the recognition and differentiation of leukemia, the malarial fevers, Hodgkin's disease, pernicious anæmia and typhoid fever.

II. As an indication of the amount of damage sustained by cases of hemorrhage.

III. As a link in the chain of evidence for or against malignant disease and various septic conditions.

IV. As a part of a complete physical examination in cases about to be subjected to operation.

The cases of the first group demand a blood examination for their complete diagnosis, and it is in this class that the blood gives us the diagnosis "ready made." The differentiation between Hodgkin's disease and leukemia is made most readily with the microscope, for instance, Hodgkin's disease showing normal blood during the

\* Read before the Brooklyn Surgical Society, Dec. 7, 1905.



greater part of its course. The diagnosis between a pernicious anemia and a profound secondary anemia, due to malignant disease or to repeated hemorrhages as from a fibroid uterus, is one of interest from a prognostic as well as a therapeutic point of view. I saw recently a case of a young woman whose periods for some months had been accompanied by profuse and prolonged hemorrhages. She had been curetted, but was not benefited. She had not lost weight, did not run a temperature; was very pallid, and a day or two before had begun to develop a few petechial spots on the thighs. A blood examination showed 8 per cent. of hemoglobin, 1,016,000 red cells, 2,800 leucocytes with many nucleated red blood corpuscles—a very pronounced case of pernicious anemia.

The blood picture in cases of obscure carcinoma is different. The blood examination in typhoid and malaria is of interest to the surgeon in distinguishing between these conditions and sepsis. Both malaria and typhoid regularly show a diminished leucocyte count, while the presence of the plasmodium or of a strong and positive Widal reaction is practically pathognomonic. In typhoid, inflammatory complications, such as otitis, pneumonia, severe bronchitis, cystitis, periostitis, phlebitis, cholecystitis and peritonitis give a prompt leucocytosis in patients whose resistance is still active. Intestinal perforation may or may not be attended with an increased leucocyte count and Thayer's studies lead him to the belief that the prospect of relief by surgical operation is best in the cases with a higher count.

II. Hemorrhage. The effect upon the blood of an acute hemorrhage of decided amount is as follows: An increase in the number of leucocytes, usually from 15,000 to 20,000, occurs very promptly in most cases and lasts for several days. This increase, as a rule, involves the polynuclear neutrophilic cells with a corresponding relative decrease in the mononuclear forms, but occasionally the reverse may be true. In fatal cases this leucocytosis is said not to occur. In blood examinations made immediately after a hemorrhage has taken place no change is to be expected in the hemoglobin estimate or in the red cell enumeration, since the loss of fluid and of cells has been proportionate, but as reaction is established, and the blood restores its normal volume by abstracting fluid from the tissues, a diminution of hemoglobin and of red cells is to be noted. This is, to a certain extent, commensurate with the blood lost, but is not to be depended upon less than six hours after the hemorrhage. A second

dary fall is apt to occur as a rule during the first week, due, it is believed, to the destruction of the immature red cells that are supplied to the blood at the time of reaction, and serve for a time to mask the full severity of the blood loss. The blood plaques are much increased after hemorrhage, and the coagulation time is shortened in proportion to the amount of the hemorrhage, so that after severe bleeding the blood clots almost immediately. The presence of a few normoblasts may be found in the blood after a severe hemorrhage, and numbers of these cells may appear and vanish during regeneration. These so-called blood crises occur also in cases recovering from other forms of secondary anemia.

With regard to the regeneration of the blood after hemorrhage, ignoring factors of age, nutrition and coexistent disease Cabot's table is:

Less than 1 per cent. of blood mass is made up in 2 to 5 days.

Less than 1 to 3 per cent. of blood mass is made up in 5 to 14 days.

Less than 3 to 4 per cent. of blood mass is made up in 14 to 30 days.

The last amount is a very severe hemorrhage, few surgical operations involving the loss of more than 1 per cent.

According to Burfeind, regeneration is effected within four weeks if the hemorrhage produces a hemoglobin loss of 25 per cent. and in about three weeks if the loss does not exceed 20 per cent. This is, in his opinion, the average regeneration time. The process of regeneration is more active in cases that have received transfusion of a normal saline solution, and the transfusion of blood has been proved to stimulate the process still more markedly.

In cases that have suffered from repeated small hemorrhages, as from hemophilia uterine disease, hemorrhoids, etc., the blood may show little or no change or an examination may reveal very marked anemia in a patient whose flesh and color are not much reduced.

The value of a complete examination of the blood, in cases of suspected malignant growths, is well established, but too much stress is not to be laid upon the presence or absence of leucocytosis as a matter of great diagnostic importance.

Early in the disease little or no change is to be noted, but with the beginning of cachexia, or before this makes its appearance, anemia, moderate in some cases and in others more severe, supervenes. This is a true secondary anemia and the hemoglobin loss is at first out of proportion to the diminution of the red cells.

In Da Costa's series the color index ranged moderately below normal, usually from 20 to 30 points. This anæmia is very resistant to treatment, and later on as it progresses with the course of the disease, the red cell loss becomes more pronounced, and the color index rises somewhat. The stained specimens show very marked deformities of shape and size in proportion to the amount of anæmia present and in the later cases nucleated red cells are very common—more common than in any other form of secondary anæmia. The nucleated cells are almost entirely normoblasts.

In the matter of leucocytosis an increased leucocyte count is present in less than one-third of all forms of carcinoma, but occurs in a larger percentage of sarcomata. The amount of the leucocytosis seems to depend upon the size of the growth and upon the presence of accompanying inflammatory changes or hemorrhage into the surrounding structures.

Thus a leucocytosis is more likely to be found in a large carcinoma of the breast than in a small malignant neoplasm of the face. The site of the growth also has apparently some influence upon the leucocytosis. Thus Da Costa found it more constant and striking in cancer of the liver—80 per cent.; least frequent in cancer of the uterus—13 per cent., and of least degree in cancer of the stomach.

Differential counts, as a rule, show a range of polynuclear neutrophiles, between 80 and 90 per cent. in cases with leucocytosis, and sometimes in cases without any *absolute increase* in the number of the white cells. This change, however, is not to be relied upon constantly, as a relative lymphocytosis is sometimes found. Myelocytes are very common, especially in cases with primary or secondary bone involvement.

The value of a blood examination then is not to determine by the presence or absence of leucocytosis alone if a suspected case be one of carcinoma, but is of a somewhat less definite utility.

It is useful to exclude pernicious anæmia, a clinical picture that may very closely simulate the cachexia of malignant disease, but it is less useful in an attempt to distinguish between a cancer and an obscure septic process. It was thought at one time that an absence of the physiological digestive leucocytosis was pathognomonic of carcinoma of the stomach, but this has been shown to be incorrect and Lömet's view that the absence of digestive leucocytosis in gastric cancer has about the same diagnostic value as the absence of

hydrochloric acid and the presence of lactic acid is admitted to be corroborated.

Nevertheless, if in a suspected case in which marked hemorrhage has not occurred, a severe anæmia with the presence of nucleated red cells, a leucocytosis and an absence of digestive leucocytosis be found the blood findings point very strongly toward carcinoma of the stomach.

In the differential diagnosis between cancer of the liver or bile ducts and other liver conditions, as cirrhosis, echinococcus cysts or *simple* gall stone colics, the leucocyte count, if increased, speaks in favor of cancer. In echinococcus cyst eosinophilia is regularly present.

The presence of leucocytosis is an evidence against the benignness of a tumor, and an increasing white cell count in a case of malignant disease betokens a rapidly growing tumor or metastasis.

And if a leucocytosis, which has disappeared after the removal of a malignant growth is found to return and persist, it is to be considered a forerunner of a recurrence.

But the attention of the surgeon has been directed to the examination of the blood in connection with the septic infections more than in any of the conditions we have so far touched upon. There has been a tendency to turn to the blood for a pathognomonic sign of sepsis, and when in some (in many) cases of undoubted pus infection no corresponding changes in the blood were found, too hasty generalization has condemned all blood findings in this condition as fallacious or equivocal. In septicæmia and pyæmia, in abscess, or in diffuse suppuration, anywhere in the body we may find the following blood changes. The hemoglobin and to a somewhat less extent the red cells are diminished more markedly in severe and generalized infections than in mild and localized ones; more notably in pus foci of long standing than in those of short duration. The degree of anemia is more pronounced and more rapid in its development than in any other infectious disease.

The leucocytes are increased in about 70 per cent. of all cases. In trivial or in well walled off conditions leucocytosis is frequently absent, it is believed because the toxins of the infection do not gain access to the general circulation in sufficient amount to bring about reaction and in a certain number of very virulent conditions this systemic reaction appears to be overpowered. When leucocytosis is present it is usually found that the increase of the polynuclear neutrophilis is out of proportion to that of the other varieties



of white cells, but this is not always true, for there may be no change in the differential counts from normal. Rarely an increased polynuclear count may be found when no leucocytosis is present. The significance of all these conditions is, so far as we know, the same. There has been a tendency on the part of some hemotologists to place great importance upon the finding of an increased number of polynuclear leucocytes in the blood, whether this is accompanied by leucocytosis or not, and this condition is even made more important than the enumeration of the leucocytes itself. But this must be considered unsound.

A polynuclear increase without definite leucocytosis is the equivalent of a moderate leucocytosis and a leucocytosis is to be considered as such whether a large relative increase of polynuclear forms be present or not.

An iodophilia is constantly present, in sepsis, and in all purulent conditions, but is also found in so many conditions that its value is, I believe, purely negative, and in this it differs from the leucocytic count, which, it cannot be too often repeated, has no negative value in septic conditions. If it be found, it remains to interpret it. If it be absent, its absence is not to be considered as excluding *anything*.

These generalizations with regard to pus infections apply to abdominal conditions particularly, and it is from the misuse of the leucocytic count alone as of equal positive or negative value that a good deal of scepticism as to its usefulness has arisen.

So with regard to the worth of a blood examination in appendicitis there still exists considerable difference of opinion among surgeons, but a certain amount of this difference at least is traceable to the fact that too little stress is laid upon the stage of the disease at which the leucocytes are counted. Thus Kelly says: "Early in the disease a rising leucocytosis is an indication for immediate operation, later on when abscess formation has begun no reliance can be placed upon the leucocyte count." And Da Costa, somewhat more definitely: "Appendicitis should never be ruled out because leucocytosis is absent, nor should a moderate leucocyte count be considered an indication of the benignancy of the lesion. A count in excess of 20,000, particularly if it persists or increases, may be relied upon as a certain sign of pus or its consequences, and is sufficient to warrant operative interference if the symptoms point to the appendix as the seat of the trouble."

In a word, the examination of the blood in

appendicitis, as in other concealed infections, is more useful as an index of the progress of the disease than as a help in diagnosis.

With regard to the value of a blood examination preceding operation little need be said save that it forms a part of a complete physical examination, and will be indicated for the sake of completeness, if for no more definite reason, in most cases where extensive surgery is to be done.

#### HERNIA OF THE BLADDER, COMPLICATING INGUINAL AND FEMORAL HERNIA.

BY O. A. GORDON, M.D.

Until within a few years, the presence of the urinary bladder in the hernial sac was looked upon as a curiosity, and the complication did not receive the consideration that its importance called for.

Since the operation for the radical cure for hernia has become so frequent, the complication is more frequently noted and a few scattered cases have been reported; but only a few attempts have been made to collect such reports. The very large number of accidents in the way of wounding the bladder, before its presence in the sac was suspected, would seem sufficient reason for bringing the subject more frequently before the profession.

No one surgeon has met with a sufficiently large number of cases to write from personal experience; but when the facts gathered from reports of different operators are considered, it will be found that the signs and symptoms are clear enough if borne in mind to lead to a larger number of correct diagnoses, and to diminish the number of accidents.

The writer, having met with one such case while operating upon an old man for strangulated hernia, was led to look up the subject and it seemed worthy of consideration by this Society.

Not only will such consideration by surgeons lead to more frequent correct diagnosis, but to a better understanding as to the proper operative procedure when the complication is met with.

A portion of the bladder may escape from the pelvis by any of the openings through which intestinal hernia passes; but the greater number has been by way of the inguinal canal, which may be explained by the fact that inguinal hernia is far more common than femoral. Of 181 cases reported by Brunner, 128 were in men and 44 in women, with 9 in which the sex was not given. 138 cases were inguinal, 29 femoral, 8 perineal and 6 other varieties.

In a large majority of cases this hernia is found in the scrotum of elderly males, although one case has been reported in a boy of two years.

Reporters differ as to the most frequent way in which the bladder may be involved. Some maintaining that the intra-peritoneal portion is by far most often herniated, while others find that it is the extra-peritoneal portion. And we know that in some cases there are found both extra- and intra-peritoneal portions of the viscus.

The writer quotes from the report by Dr. B. F. Curtis, and by permission reproduces his diagrams.\* He found that two-thirds of the cases were of the extra-peritoneal variety.

"The diagrams illustrate the different varieties of vesical hernia. The bones of the pelvis are represented in outline, and it is supposed that the abdominal walls have been entirely cut away along the crest of the ilium, Poupart's ligaments, and the pubes. The section also laying open the inguinal canal. The anterior part of the hernial sac has also been cut away, so as to expose its contents, and the bladder has been laid open by an incision entirely removing part of the fundus, as well as the anterior part of the wall of the prolapsed portion. Where the section passes through the extra-peritoneal portion of the organ, its cut edge is represented by a solid line; and when it involves the intra-peritoneal part, the cut edge is drawn by a striated line. The cut edge of the peritoneum can be traced along the abdominal parietes, across the fundus of the bladder, and down into the hernial sac."

"It is important to distinguish between those cases in which the bladder alone is present (Fig. 1) and those in which there is also a hernial sac containing bowel or omentum (Fig. 2). The latter are perhaps most likely to come to operation, but the risk of accidental wounds is much greater in the former; as the operator will find only one sac and be more likely to open it at once, supposing it to be the hernial sac. Of thirty-four extra-peritoneal cases, two-thirds were complicated with other herniæ."

According to this author, "the rarest of all is the true intra-peritoneal form (Fig. 3), and is the least likely to be injured, as most cases have been recognized in time to reduce without accident." Figure 4 represents hernia of both intra- and extra-peritoneal portions of the bladder and is very important, owing to the great danger of wounds being inflicted upon the bladder, even when it has been previously recognized, as the intra-peritoneal portion forms a part of the wall of an accompanying hernial sac, usually poste-

riorly. The double danger of the condition lies in the likelihood on the one hand that the surgeon will reduce the contents of the sac, dissect out the latter, and ligate and cut it away, including a portion of the bladder—or that it may be injured after being recognized.

*Etiology.*—Vesical hernia is peculiar to advanced years and old herniæ. In a series of forty-five cases, one-third were over sixty years, and two-thirds over fifty.

Traction exerted by a mass of extra-peritoneal fat may explain the descent in some cases. In many cases the bladder seemed to have been drawn down by the peritoneum of the hernial sac. In operating for the radical cure of hernia, the custom of pulling the sac well down may displace the bladder in case of recurrent herniæ. Habitual constipation, by lifting the bladder out of the pelvis, and thus bringing it to the level of the hernial opening, a distended bladder, and a bladder the walls of which are so distensible that it yields readily to intra-abdominal pressure—are considered etiological factors.

*Diagnostic Hints.*—The importance of recognizing the condition before operation can not be overestimated, and any or all of the following symptoms should put the surgeon on his guard:

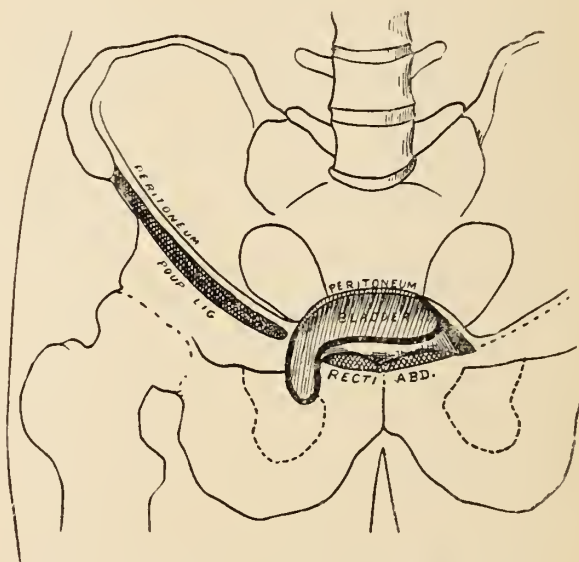


FIG. 1.—Hernia of extraperitoneal portion of bladder.

Difficulty in passing urine.

Enlargement of the hernia when the bladder is full and fluctuation in the tumor.

Escape of urine drop by drop, or it is voided in two acts—first emptying the bladder proper and then the herniated portion.

Pressure on the hernia causing a desire to urinate.

Injection of air or water into the bladder, or



retention for a long time causing distention of the tumor.

If a sound can be passed into the hernia, the diagnosis will be clear. Pressure in some cases will reduce the size of the tumor, and in others cause an uncontrollable desire to urinate.

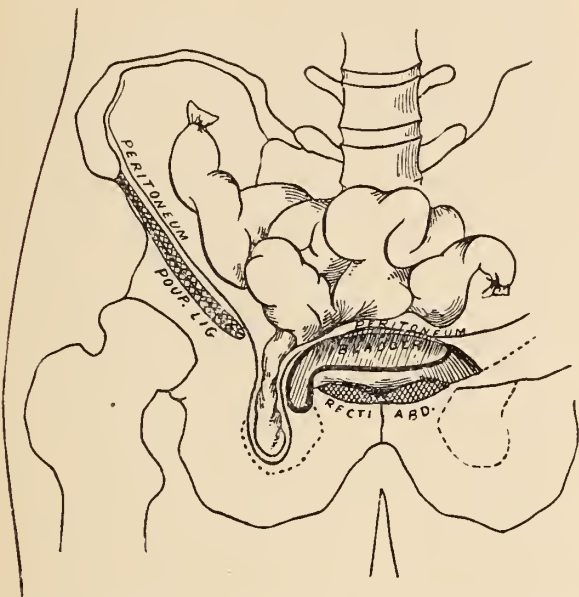


FIG. 2.—Hernia of extraperitoneal portion of bladder associated with hernia of bowels.

Should the opening between the main cavity and the herniated portion be closed, as might occur from pressure of a truss, many of the above symptoms will be absent.

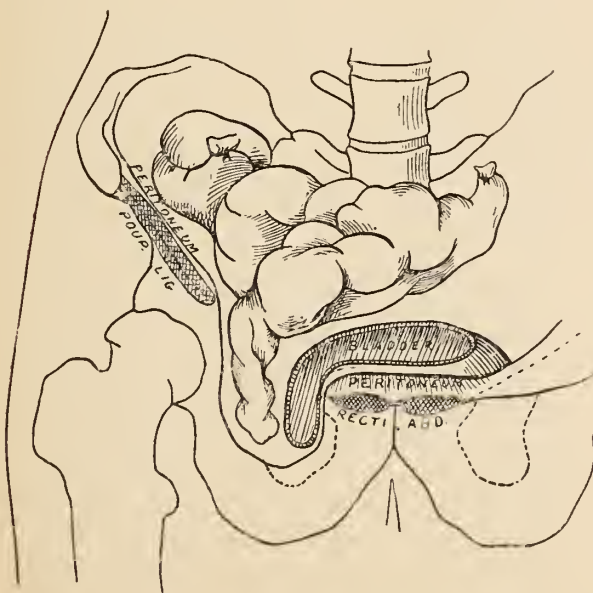


FIG. 3.—Hernia of intraperitoneal portion of bladder.

*Aids to Diagnosis during Operation.*—The hernial opening and neck of the sac are large as a

rule. The sac is often covered by a layer of fat which goes in the direction of the pubes. This layer of fat resembles sub-peritoneal fat, and is quite vascular, and has apparently a thin membranous covering or sac, which, upon opening, is found attached by septa to the fat, which in turn is attached to the bladder. This fat has been described as lemon yellow, or grayish yellow. When the portion of bladder in the hernia is normal it may be identified by its thickness, and if the net-like muscular structure is seen, the suspicion will be confirmed; but often the muscular coat is wanting, and in such cases it has the appearance of an ordinary hernial sac.

The bladder has been mistaken for the hernial sac, for a lipoma, for pro-peritoneal fat, for omentum, for a cyst, for hydrocele of the cord,

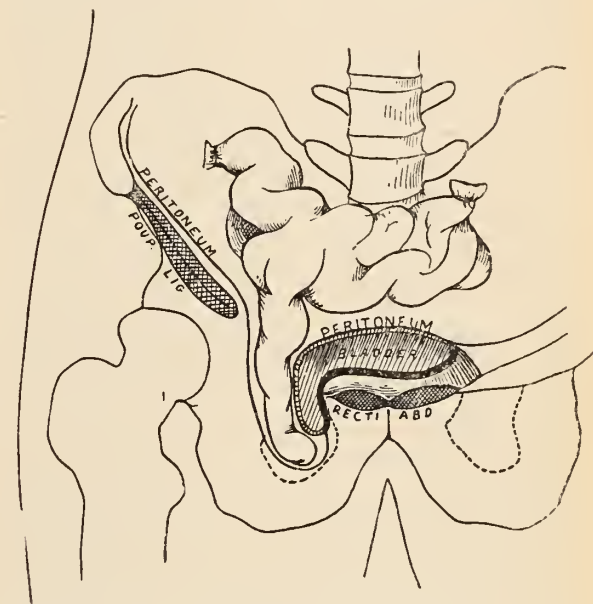


FIG. 4.—Hernia of both intra- and extraperitoneal portions of bladder.

for sacculcation of the colon, and for a second hernial sac. The bladder has not always been recognized when it has been opened; but the appearance of an urinary fistula later has cleared the diagnosis. The injuries of the bladder have been of a varied character. Some have been ligated and cut away; many have been torn by the finger in attempts to separate it from the hernial sac; puncture by needle is not uncommon.

*Treatment.*—When the bladder is recognized before injury it should be free and returned and the ring closed. In case of much difficulty in dissecting the bladder from the surrounding parts it is better to leave it. When the bladder has been wounded, the better method seems to be to suture; the sutures should be very close—to or

12 to the inch—and in three layers. The first tier should include everything except mucous membrane. The second and third should be the Lambert suture, turning in the others. The best results have followed the plan of not reducing the herniated portion after suture, leaving the ring open. If a diverticulum is found (which is rare), the choice will be between resection and returning it to the abdomen.

Experience has shown that it is not necessary to drain with a permanent catheter; but the patient should empty the bladder at frequent intervals. Primary union has resulted in about two-thirds of the cases sutured. Sinuses have as a rule closed spontaneously in from a few days to four months.

The mortality where the bladder has been wounded has been about 25 per cent.

*In Conclusion.*—It would seem that the number of cases reported is sufficient to serve as a warning to surgeons to be on the lookout for the complication in every case of hernia, inguinal or femoral, in order that the generally accepted opinion, that such a condition is almost impossible to diagnose before operation, may be reversed.

#### CLINICAL REPORTS OF SARCOMA OF THE KIDNEY IN CHILDREN.\*

BY ARTHUR H. BOGART, M.D.

Asst. Surgeon to the Methodist Episcopal and Kings County Hospitals.

During the past eight years the writer, in connection with his work in the Children's Department of the Methodist Episcopal Hospital, has had an opportunity to see three cases of sarcoma of the kidney in children, and personally to operate upon two. The third was operated by Dr. J. B. Bogart, in whose ward they were seen.

Case I: I. F., age 6 years; female. Family history: six other children, all well. Past history: Patient suffered from inflammation of bowels one year ago. Present illness: eight months previous to admission, Dec., 1895, first noticed a tumor in the abdomen. It first appeared in the lower part of the abdomen and grew upward. During this time, patient has had occasional attacks of vomiting, usually once a month, and lasting a few days at a time.

Examination: Revealed a tumor filling the entire abdomen and crowding the ribs upward

and outward. The veins of the abdominal wall were enlarged and tortuous, and the umbilicus projecting. The tumor rose higher on the left side than on the right, and had a hard nodular feel. There was flatness over the entire abdomen, except at the epigastrium: the mass was not equally firm in all places.

Operation, Dr. J. B. Bogart: Median abdominal incision made for exploratory purposes, and the tumor found to be movable. This wound was closed, and a second one made, beginning at the border of the erector spinæ muscle behind and extending forward to the rectus muscle in front. Through this incision, the left side of the tumor was easily enucleated, but the capsule of the right side was so firmly adherent to the intestines and peritoneum as to make enucleation impossible. During this manipulation, the capsule was ruptured and a large amount of soft material escaped, leaving a cavity which was packed with gauze to control hemorrhage. Patient died of shock soon after operation.

#### CASE II: SARCOMA OF THE KIDNEY (LEFT) NEPHRECTOMY. METASTASIS IN RIGHT LUNG.

H. H., three years, male. Family history, negative. Personal history: Patient has had no diseases of childhood aside from present trouble. One year ago, mother was told that the child should be operated upon for tumor of the abdomen; tumor was then quite large, and has slowly increased in size since that time. Mother says child seemed in usual health up to two months ago, when he had a convulsion; since then he has lost flesh and strength, and has grown pale and is short of breath.

Examination: Patient is rather poorly nourished, somewhat anemic; tongue, clean and moist; expression, worried. Head, large. Skin, delicate and pale. Pulse, rapid, regular and good force. Heart, negative. Chest, ribs prominent; lower ribs spreading. Lungs, respiration rapid; left chest, negative; right, liver dullness in front abnormally high; normal pulmonary breathing and resonance above third interspace. No adventitious sounds behind; liver dullness high. Abdomen, distended by a tumor occupying chiefly the left half, its outline easily visible. It is irregularly spherical in outline, and by its encroachment upon the lower ribs causes them to spread. Tumor is firm, nodular; skin is freely movable; percussion over tumor is dull, while the right half of the abdomen is tympanitic.

Operation: Five-inch oblique incision running transversely forward and inward from the erector

\* Read at the 463d Regular Meeting of the Brooklyn Pathological Society, Dec. 14, 1905. For discussion, see Proceedings of the Society.



for spinae muscle behind; tumor exposed and numerous adhesions between it, the peritoneum and small intestines separated, these with the vessels at the pelvis of the kidney ligated and tumor removed. Peritoneum sutured with chromic gut. The muscles were also included in the same suture. Subcuticular of chromic gut. This operation occupied twenty-four minutes. The pulse rose during the operation from one hundred and twenty to one hundred and forty, but the patient suffered only moderate shock and reacted promptly. Patient made a good recovery from the operation, but continued to suffer from dyspnoea. The dullness over the lower portion of the left lung increased rapidly, until at the end of ten days after operation, when the patient died, there was evidence of complete consolidation of the entire left lung.

Autopsy: Body well nourished. Wound of operation between lower border of ribs and crest of ilium on left side. Thorax explored through abdominal wound and diaphragm. Left lung and heart normal. Right lung removed, and found to be the seat of a large infiltrating neoplasm, resembling sarcoma. Abdomen: no left kidney present; right kidney; capsule stripped easily; pyramids slightly injected; small amount of pus in ureter and pelvis of kidney. Stomach, pancreas and spleen normal. Peritoneum normal.

Cause of Death: Cachexia from malignant growth in the lung.

Pathological Report: A symmetrical, spheroidal, fibro-cystic appearing mass, 14 c.m. in diameter; surface smooth; fluctuates in many areas; considerable variation in mural thickness; where sections had been removed a markedly multilocular cystic arrangement is discovered, a few shreds of adhesions present on the external surface.

Microscopical Report: Round and spindle cells—sarcoma.

Lung Pathological Report: Right lung an irregular, nodular, rough mass, with a great excess of fibrous tissue. The edges of the lung alone appear like pulmonary tissue, the remainder of the organ resembling softened, degenerated neoplasm; imbedded in the lung is a smooth, egg-shaped mass, 7 by 8 c. m., surrounded by a pseudo capsule. There are blood clots in the smaller vessels. Vascular supply is generous.

Microscopic Report: Round cell. Sarcoma.

#### SARCOMA OF THE KIDNEY.

Case III. E. M., 16 months, female. Family history has no bearing on the case.

Past history: Breast fed until fifteen months old. Always well nourished. Present illness: About two weeks previous to admission, mother first noticed a swelling in the right side of the abdomen, which has gradually increased in size. Since this time patient has been more fretful

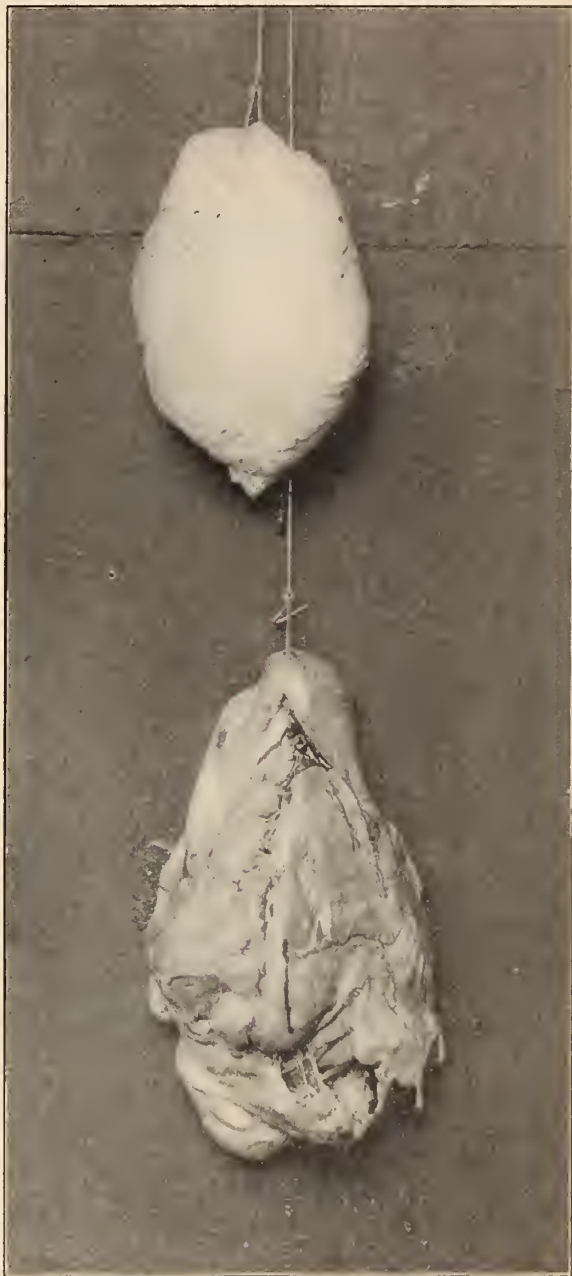


FIG. 1, CASE II.—Sarcoma of kidney and lung.

and has taken less nourishment; there has been no digestive disturbance. Patient has cried and moaned at times as if in pain; urination less frequent and no blood. Examination: Child fairly well nourished, with pale, whitish skin. Veins of the abdomen prominent. Acts as if unconscious of surroundings. Chest, heart and lungs

negative; abdomen, generally distended. The right renal hypochondriac umbilical and iliac regions are occupied by a tumor, which is flat on percussion and continuous with the liver dullness above, it extends one-half inch to the left of the umbilicus, and to within one-half inch of Poupart's ligament, and is somewhat cystic in feel.

Examination of the eyes by Dr. J. S. Wood reveals complete absence of the iris in both eyes, imperfect vision, and nystagmus due to difficulty in seeing clearly. No evidence of intracranial disturbance.



FIG. 2, CASE III.—Patient before operation.

Operation: A transverse incision, four inches in length. Pedunculated tumor attached to the capsule and the cortex of the kidney delivered, tied off, and removed.

Bi-section of the kidney: Removing a diseased section, wound closed in layers with continuous chromic gut suture. This operation lasted thirteen minutes and was accomplished with very little difficulty, there being no hemorrhage and very few adhesions.

This patient suffered comparatively little shock as the result of this operation, and left the table in excellent condition, but died suddenly twelve hours later.

Pathological report: Weight of tumor 850 grammes; it is an oval mass of lawless tissue 13 c.m. in diameter, with an irregular rough exterior, consisting of a capsule and pseudo capsule intimately associated with the deeper parts of the tumor by numerous connecting trabeculæ. On section there is seen a fairly uniform concentric arrangement of the tumor in dense lamellæ; the center of the mass is softer than its periphery, apparently having undergone degeneration. There are numerous areas of hemorrhage and brown pigmentation.

Microscopical diagnosis: Round cell sarcoma.

The prognosis in these cases is absolutely hopeless without operation. In view of the fact that successful cases have been reported (notably two by Abbe) in one of which the patient remained well at the end of ten years, it becomes our duty to advise it in all except extreme cases. There can be no doubt that there is a time in the history of sarcoma of the kidney, like all other malignant growths, when the disease may be attacked with a reasonable hope of cure. It is to be regretted, however, that these cases, like many others of a similar nature, are permitted to go until too late. In the case of the boy three years of age, operated upon by the writer, this patient was seen by a physician one year before, who advised waiting until the child grew older.

When we remember that 94 per cent. of new growths of the kidney in children are malignant, such advice seems unfortunate; there *should* be no doubt as to the proper course to pursue in all suspected cases.

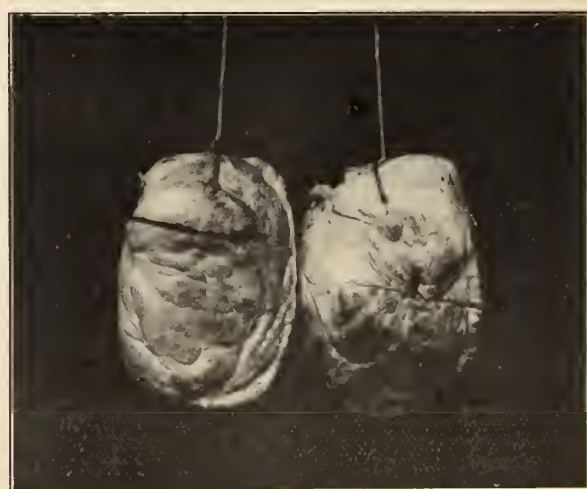


FIG. 3, CASE III.—Sarcoma of kidney.

The operation of nephrectomy for sarcoma has, in the writer's experience, been comparatively simple. In one case it lasted thirteen



minutes, in the other twenty-four; in one the patient apparently suffered but little shock at the time of operation and left the table in good condition, but died suddenly within the next twenty-four hours.

In the other case the pulse rose from 120 to 140, this case recovered completely from his operation, but died ten days later from pulmonary involvement, which was undoubtedly present at the time of operation, though not recognized.

In the other case, operated by Dr. J. B. Bogart, the operation was extremely difficult, owing to dense adhesions and hemorrhage, and finally had to be abandoned.

The transverse incision from the erector spinæ muscle forward, parallel with the lower border of the ribs, is very satisfactory and to be recommended. In all cases one should have a clear idea of what he purposes to do and proceed to do it as rapidly as possible, avoiding unnecessary loss of blood. The question of drainage had better be determined at the time of operation. In one of the writer's cases, he was able to close the wound at once; if, however, the oozing be considerable this will not be possible.

Early recognition and early operation will reduce the mortality of sarcoma of the kidney in children. It is the disease and not the operation which is to be feared.

The writer is indebted to Dr. C. F. Buckley for the accompanying photographs.

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### SPASTIC CONSTIPATION.

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BY DUDLEY ROBERTS, M.D.

Habitual constipation because of its very commonness is apt to receive scant consideration, not only by the laity, but also by the profession. Few conditions, however, have such varied etiology, and therefore present such opportunity for useful and interesting study. Undoubtedly a large proportion of cases that may be spoken of as habitual constipation give rise to such slight disturbances of health that afflicted individuals hesitate to undergo the inconvenience of diagnosis and treatment; in their ignorance they are satisfied to use a certain cathartic until habituation to its use makes another and more powerful one necessary. When relief is sought through medical advice the condition should be thoroughly investigated, and certainly they should not be started or encouraged in the cathartic habit.

While the indifference to constipation arises in part from an insufficient realization of the dangers to health entailed by its persistence, it would seem that in greater part the indifference is due to lack of appreciation of the curability of a large majority of all such cases.

The form of constipation that most generally escapes attention is probably that in which the retention of feces is due to spastic contracture of a part or the whole of the lower bowel. Very often it is developed upon a long standing atonic constipation, but it may be developed without such a preceding condition. This spastic condition as a cause of constipation was first described by Cherczewski in 1883 (*Revue de Medicine*), and further elaborated by Fleiner working with Kussmaul in 1893 (*Berlin klin. Woch.*). Its frequency, according to Albu (*Therap. der Gegenwart*, Vol. 46, No. 4), should be placed as high as 25 per cent. of all cases of habitual constipation. Certainly this is none too high in this country, where neurasthenic conditions have become so very prevalent. Among neurotic women of the upper class we would place the frequency at a much higher figure.

The condition also demands careful attention because of the absolute failure of the ordinary measures designed to correct sluggishness of the bowels, the generally accepted explanation for all cases not found to be due to organic abnormalities.

Usually this spastic condition of the large intestine is due to neurasthenia, hypochondria or hysteria, it being an evidence of irritable weakness; pelvic disorders have been held responsible for some cases. A few examples of this affection have come under the writer's observation in apparently strong men, not of the neurotic class, but who have suffered for many years with chronic constipation and have used large doses of active cathartics. In some cases it would seem to be intimately associated with spasm of the anal sphincters, in the non-neurotic class, the spasm of the sigmoid and rectum being reflex in nature.

The subjective symptoms of this condition while not in themselves absolutely characteristic are at least exceedingly suggestive. It very often happens that we are consulted because the usual cathartics do not work to the patient's entire satisfaction; unless the stools are watery they are passed with great difficulty. Very commonly there is a feeling of discomfort in the rectum after defecation; relief is not experienced as in the atonic form. The patient is apt to rec-

ognize that the bowel does not enter into the proceeding, but that all the work is done by the pressure of diaphragm and abdominal muscles. The necessary straining induces headache and faintness, not relieved by the completion of the act. Very often such patients are forced to evacuate the bowel several times during the day, and sometimes to make the attempt when an enema of water discloses that there is nothing in the lower bowel to be removed. It may be recognized that the consistence of the stools does not account for the difficulty, as the stools are rarely hard although commonly viscid. Slight pain in the region of the sigmoid flexure or cæcum may be complained of, and instead of this being relieved by defecation is actually made worse; this pain may be felt high up in the lumbar regions, and then is attributed by the patient to disturbance of the kidneys.

It very often happens that considerable gas is passed per anus, and as a rule this is comparatively free from putrefactive odor; abdominal distention, however, is rare.

The character of the stools is of great value in diagnosis. Most commonly the passages have a small caliber, the size of a lead pencil or slightly larger; when this is the case the indication is that the lower part of the large intestine is affected. Similar conditions are presented when the anus is tightly contracted or when there is stenosis of the rectum. Formerly it was thought that such small calibered stools indicated stenosis with a fair degree of certainty. Another form that may be assumed by the stools is that spoken of as "sheep dung," there being a daily passage of many small, round balls of fecal matter the size of marbles. Contracture of the upper part of the colon is apt to occasion this form. We must also recognize that a similar appearance may be presented in atonic constipation, a fact pointed out by Fleiner, Boas, Rosenheim, Nothnagel and others. The larger balls of fecal matter so common in atonic constipation are not observed in the spastic form.

The feces in this condition are not dry and hard but rather sticky and coherent. So the cylinders may attain a great length. Westphalen\* has shown that the water content of such stools is about normal, 75 per cent., while in the atonic form the water content is only about 60 per cent. He also calls attention to the fact that the gas content of these stools is low, as evidenced by the

fact that they sink in water, while normal feces and atonic feces ordinarily float.

Abdominal examination usually discloses a normal amount of distension over the intestines. Very commonly there is present a general enteroptosis with the narrow costal angle and floating tenth rib. By palpation we discover that some portion or even the entire colon can be rolled under the fingers, the size being about that of the index finger. The most common site of this finding is the left or right iliac fossa, corresponding to the sigmoid flexure or cæcum. The latter may be mistaken for the appendix, and as there is apt to be some tenderness of such spastically contracted bowels the chance of error is increased. A loop of small intestine may also be felt in strong contraction and give rise to errors; its contraction is more spasmodic, not tonic. By percussion it may be demonstrated that certain portions of the colon are moderately filled with gas, while an adjoining portion is contracted into a hard cord. Dilatation of the colon by air introduced per rectum may help in proving the identity of the structure palpated.

Tenderness in the neighborhood of the contracted bowel is but slight, but there is usually tenderness on deep pressure in the umbilical region. Westphalen calls particular attention to a sensitive area in these cases to the left and a trifle below the umbilicus, corresponding to the aortic ganglia of the sympathetic; this he believes to be a valuable point in the differentiation of intestinal neuroses, particularly the spastic constipation.

Rectal examination in these cases, particularly where the spasm is low down, is of great value; but little reference appears in the literature to such examinations in these cases. If the abdominal wall be thick or held rigid under the palpating hand it may be very difficult to confirm the impressions gained from the subjective examination and inspection of the stools; particularly in these cases do we get valuable assistance from the rectal examination. When the Kelly speculum is introduced, the patient being in the knee chest position, the bowel does not balloon up as it does to a degree in the normal condition, and to a more marked degree in the atonic states; we notice that considerable interference is offered to the passage of the speculum, and the walls hold close about the end of the tube. When attempts are made to blow up the rectum with air by means of a Politizer bag and a bougie it is read-

\*Archiv für Verdauungskrankheiten. Band VII, Heft 1 and 2.



ily determined that there is an abnormal resistance to such dilatation.

The prognosis of this condition is ordinarily good, for even without absolute cure of the nervous abnormality we can accomplish much in improving the general nerve tone, and can certainly make the colon less irritable.

In the treatment, it is of course important to devote considerable attention to the underlying neurasthenia or hypochondria. While such treatment need not be discussed at length, we would emphasize two points. In the first place, a large majority of these patients are chronically undernourished, taking only about half of the food they require. A study of this matter is of the greatest importance, not in the way of passing consideration, but rather an actual estimation of the nutrients ingested compared to the caloric demands under the particular conditions of life. Remarkable results are achieved by raising the nutrients far beyond their actual requirements, even though the patient continues to pursue the ordinary occupations. In some cases it may be necessary to resort to putting the patient to bed or at least ordering comparative rest. The second point that should be emphasized is the value of moral treatment. Many individuals form a habit of worrying about the action of the bowels, and in some this reaches a point where defecation is actually inhibited. There is no doubt that some of these spastic conditions are induced by worries and fears. Much can be done with these individuals by a course of psychic treatments allied to "suggestion," but more particularly directed to their reasoning faculties as suggested by the valuable work of Dubois. (*Les Psychoneuroses*; translated by Jelliffe and White, *The Psychic Treatment of Nervous Disorders*.) In the neurotic classes much dissipation of energy may be prevented by such psychical treatment.

The local treatment of the bowel is very important; in fact, generally essential. The object of such treatment is the relief of irritation and the lessening and correction of irritability. Diet plays a large part in the diminution of irritation. It is usually discovered that these patients have persisted in taking large amounts of raw fruit, prunes, apples, oranges, raisins, figs and dates, and large amounts of coarse vegetables, because of their acknowledged virtue in relieving some cases of atonic constipation. The condition is often made worse by these substances, which strongly irritate the mucosa. The food is rather ordered and prepared so that all mechanically irritating substances shall be eliminated. If

fruits and coarse vegetables are taken at all, they must be prepared by being passed through a sieve so that they are finely divided. Fats are well borne, and act as natural incitors of peristaltic action. Sugars, particularly in the form of honey and sugar of milk, are given to advantage. Care must be taken in interdicting certain foods, not to diminish the nutritive value of the diet. Schmidt (*Munch. med. Woch.*, vol. 41, No. 7) strongly recommends the use of agar, which passes the gastrointestinal tract unchanged and gives the desired bulk to the feces without being irritating.

The hydrotherapeutic measures so valuable to arouse the sluggish bowel to action are distinctly contraindicated in the spastic conditions of the intestine. Instead, then of the cold abdominal douche and friction baths, we use the warm sitz baths, warm douche under low pressure, or some form of warm application to the abdomen. This procedure may readily be carried out in the patient's house at night, while the ordinary occupation is pursued during the day. Several layers of flannel or spongeopiline are soaked in hot water, and after the excess has been removed the application is made while still hot, and retained without changing throughout the night. Massage is certainly contraindicated.

All cathartic remedies must be discarded, as none can cure the condition, and in fact none can aid in the temporary alleviation. The intestine has an overplus of contractile force. What is desired is rather sedation and proper regulation. These objections do not apply to the use of clysters of oil, which are, no doubt, of great value in the atonic variety as well. Since the publication of the investigations of Fleiner, we have had many contributions referring to the value of the oils, particularly olive oil, in the form of clysters, and also by mouth. In large doses the oil is not well borne by mouth, and in spastic constipation we desire the action entirely on the lower bowel. It is, therefore, preferable to administer it by rectum. The value of the oil so used is dependent not only on its physical properties, softening and dissolving the feces, coating and protecting the mucous membrane, and diminishing the absorption of water, but also on its chemical action. The latter is a result of the breaking down of the oil under the action of the bile and pancreatic ferments still remaining active in the cæcum. Through these digestive juices the normal fatty acids and soaps are generated, and exert a mild chemical evacuating action.

The choice of the oil depends largely on the

means of the patient. Pure olive oil is costly and difficult to obtain, while the poorer qualities are frequently irritating. In any case, where burning sensations or severe peristaltic unrest follows the use of oil, the difficulty should first be referred to a poor quality of the oil. Poppy oil, or the oil of sesami, are much less expensive, and are about as satisfactory.

The best time for the use of these clysters is on retiring for the night. In this way it is possible to have them retained twelve or more hours. For the first few times, it is best to have a pad applied to perineum, as some of the oil is apt to be passed with any expelled gas, to the great discomfort of the patient. The amount ordered depends on the site of the spastic contraction. When it is desired to reach an affected cæcum, it is necessary to use from twelve to sixteen ounces. If only the sigmoid need be reached, one begins with five to ten ounces. In children we use even less. While it is convenient to have a special olivary tipped hard rubber oil nozzle, with large bore, the ordinary rectal tube may be used. The simplest procedure is to have a large funnel, with hook attachment, suspended by the bedside, the tube fitted with a good pinch cock. In this way the patient is able to take the injection without assistance. When it is desired to have the injection pass to the higher portions of the bowel, the hips are elevated on a pillow, or the patient assumes the knee-chest position. In either case the hips should remain elevated for five minutes after all the oil has passed out of the tube. Irritation, and consequent expulsion of the oil, is less apt to occur if it is warmed before use to about 99 degrees F. For children we make use of a hard rubber syringe with a suitable end piece, rather than the slower funnel method of injection.

These injections are taken daily for a period of a week, and the effect is estimated by the changes in the stools and palpation of the colon. The oil does not have an immediate evacuating action, and occasionally it may be necessary to move the bowels for the first few days with an ordinary soapsuds enema. The frequency of the injections is diminished, until, after a period of two to four weeks, they may be discontinued.

In addition to the oils, or without them, we may use hyoscyamus or belladonna in suppositories. When the oil treatment is not being used it is desirable to make the amount of drug in each suppository small, and give several for their content of fat. As a further antispasmodic and aid

to the nervous condition, we may use some form of bromide with or without chloral.

It may be necessary to dilate the anal sphincters forcibly under gas or ether, or we may obtain a good result with the graduated hard rubber bougies.

The results obtained depend on the proper selection of cases, and the co-operation of the patient. The cure of the condition may be a matter of weeks and months in the more severe forms, with great nervous irritability. At times the diagnosis is difficult, requiring as it does more or less familiarity with stool examination, and experience with the normal "feel" of the intestine.

### EVERSION FORCEPS.

JAMES W. INGALLS, M.D.

The accompanying cut represents a form of eversion forceps designed to aid in everting the lids during operations for trachoma. The principle of the "cross-bar" is used in construction of the instrument. the blades are easily opened



and then the lid is seized and everted. Removal of forceps is quickly effected by a slight pressure. There are no locks nor catches to get out of order at the critical moment. The spring is regulated so that the instrument holds firmly, yet does not lacerate the tissues.

### TRANSACTIONS OF SOCIETIES.

#### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, FEBRUARY 20, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

There were about 200 members present.

The meeting was called to order, and the minutes of the previous meeting read and approved.

#### REPORT OF COUNCIL.

The following candidates have been accepted by the Council:

Morris J. Dattelbaum, 335 Stone Avenue.

Francis B. Doyle, 311 State Street.

Louis F. Licht, Forest Avenue and Butler Street.

George C. Owens, 275 Kingston Avenue.



## APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Charles L. Atkinson, 75 Hanson Place, L. I. C. H., 1900.

William Dillon, 192 North Sixth Street, Kings and Queens Coll., Dublin, 1885.

Traverse R. Maxfield, 452 Ninth Street, Univ. Mich., 1884.

George W. Newman, 234 Leonard Street, N. Y. Univ., 1864.

Thomas F. Patterson, 88 Pioneer Street, L. I. C. H., 1896.

J. J. Rooney, Henry Street, Coney Island, L. I. C. H., 1897.

Alexander S. Sim, 128 Sands Street, L. I. C. H., 1904.

Horace M. Sloat, 149 Van Buren Street, L. I. C. H., 1887.

Proposed by W. F. Campbell, seconded by Membership Committee.

LeBaron Botsford, 225 Stuyvesant Avenue, Jefferson, 1873.

Proposed by S. H. Lutz, seconded by H. F. Jewett.

M. T. Reynolds, 164 Montauk Avenue, P. and S., 1901.

Proposed by G. E. Deely, seconded by E. J. Morris.

George A. H. Smith, 313 Sixth Avenue, L. I. C. H., 1898.

Proposed by J. H. Ohly, seconded by J. S. Wood.

George W. Tong, 429 Third Street, L. I. C. H., 1903.

Proposed by J. H. Long, seconded by W. S. Hubbard.

J. Zimmermann Wild, 523 Washington Avenue, Bellevue, 1883.

Proposed by H. A. Fairbairn, seconded by C. N. Cox.

## ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared by the President elected to active membership:

Chester F. Duryea, 4 Clark Street.

Henry Moses, 4 Lefferts Place.

J. N. Teeter, 169 Washington Park.

## SCIENTIFIC SESSION.

1. Paper—The Treatment of Meningococcus Meningitis on the First Medical Division of Bellevue Hospital during the Early Summer of 1905. By Edward L. Dow, M.D., New York City.

Discussed by Drs. Browning and Van Cott.

## EXECUTIVE SESSION.

On motion, duly seconded and carried, a vote of thanks was tendered to Dr. Dow for his courtesy in appearing before the Society to read a paper.

Dr. L. C. Ager offered the following report on behalf of the Committee appointed to formulate a practical method of carrying out the suggestions made in Dr. Ager's paper entitled "Some Medical Problems to be Solved by the General Practitioner":

First, That a committee of five be appointed, representing as far as possible, the different sections of the city.

Second, That the Editor of the JOURNAL be a member of the committee.

Third, That the Editor of the JOURNAL allow a reasonable amount of space to the work of the committee.

Fourth, That the Librarian be requested to assist the committee in any way compatible with his other duties.

Fifth, That the committee be directed to co-operate with similar committees from other organizations.

Respectfully submitted,

A. T. BRISTOW,

J. M. VAN COTT, JR.,

R. T. WHEELER,

LOUIS C. AGER, *Chairman*.

It was moved and seconded that the report with the recommendations therein contained be accepted. Carried.

Adjourned.

JOHN A. LEE,  
Secretary.

THE MEDICAL SOCIETY OF THE  
COUNTY OF KINGS.

STATED MEETING, DECEMBER 19, 1905.

The President, J. W. FLEMING, M.D., in the Chair.

PAPER: MEDICAL PROBLEMS TO BE SOLVED BY THE GENERAL PRACTITIONER, BY LOUIS C. AGER, M.D.

*Discussion.*

DR. J. M. VAN COTT said that he recalled very distinctly when, in 1881, Robert Koch had had his debate in the Berlin Medical Society, and announced that he would soon show a method by

which tuberculosis could be diagnosticated clinically. In 1882, there appeared his differential stain for tuberculosis. About that time Neisser's gonococcus was also placed on the list of possible diagnosis by a special method, and following that came the diagnosis of diphtheria by culture after the very brilliant work of Loeffler and after the inauguration of work at the Institute of Berlin. Since that time the other methods Dr. Ager had spoken of had come into vogue. Ehrlich discovered the diazo reaction, which perhaps is not the most stable of these special methods. The speaker thought the consensus of opinion is 50 per cent. against the diazo reaction, the trouble being that in cases of tuberculosis and in cases of suppuration one gets a reaction, which cannot be distinguished in any way from that of typhoid.

There is no question at all as to the value of the Widal reaction. This is based on the phenomenon of the agglutination of the cholera vibrio, which Pfeiffer discovered accidentally in the inoculation of cholera vibrio into the peritoneal cavity of guinea pigs. It occurred to Widal and another gentleman that this might be utilized for diagnostic purposes in typhoid, and it was found that there was the same reaction of typhoid bacilli in the presence of typhoid blood serum.

The speaker mentioned the value of the examination of the blood in special diseases. He did not refer, he said, to the presence of the plasmodium malariae, nor did he refer to the work that has been done on the mosquito theory alone, but to the enumerations of the white corpuscles, their size, shape and numbers. Certainly surgeons are well aware of the value of this work. We have to go into these special investigations in order to cover the facts. His opinion was that a man is going backward who fails to take advantage of the means of diagnosis at his disposal. If he cannot himself do the work, perhaps for lack of time, he should refer it to some one who has the ability and time.

The idea of an exchange or central branch for the exchange of views from the literature on the subject seemed to him most excellent, and he felt as though Dr. Ager's paper ought to be backed up by the formation of a committee or somebody to make practical suggestions as to the way in which such a thing could be undertaken. There were several men in town who had the ability and time to do the work. He believed if some arrangement could be entered into whereby every member of the society could be sure

of diagnostic work being done properly and at a reasonable compensation, Brooklyn would stand on a par with New York and other communities in having her own high grade diagnostic facilities.

DR. A. T. BRISTOW thought it has long been evident to medical men that in certain branches of investigation, the observations made in the laboratories must be supplemented by a series of clinical observations made through wide areas of country for the solution of some of the most pressing problems of modern medicine. The laboratory has done much for modern medicine, but some of the greatest discoveries have been made by men without laboratory training. Take, for instance, the discovery of vaccination. Here was a fact discovered by an observer who was a country practitioner, but a keen observer. By a series of clinical observations he proved the immunity which was conferred by vaccine virus, and made his name famous.

Another and more modern, and perhaps more brilliant instance, of the same method of research is illustrated in the discovery of the mode of conveyance of that great pestilence—yellow fever. The microscope is powerless in the presence of yellow fever. The presence of the bacillus icteroides has been shown to bear no relation whatever to the disease. A plain clinical observer, William Finley of Havana, twenty years ago suggested that the mosquito bore an active causal relation to the spread of yellow fever, and it was reserved for the United States Yellow Fever Commission, not working with their microscope, but by clinical experiment, to prove beyond peradventure, that the mosquito was the carrier and inoculator of the poison of yellow fever. We know that the organism of yellow fever, whether it belongs to the protozoa, or whether it belongs to the bacteria, is ultra microscopic. Therefore, at present the microscope is powerless to aid in the investigation. It has been to clinical observations such as Dr. Ager had referred to, that we are indebted for our present knowledge of yellow fever. The observations of Findlay and the achievements of Walter Reed and the Yellow Fever Commission, of which he was president, stand second to the discovery of Jenner.

It is not the microscope alone that is to solve the mystery of cancer. We shall have to look to the intelligent observations of intelligent practitioners all over the land. There are many questions concerning the pathology of cancer of which we are ignorant. We have all sorts of theories, those of Cohnheim, Ribbert, Hanseemann



and a number of other distinguished workers in the laboratory, but they have all led to nothing so far except a war of words and theories. To-day, we know no more about cancer than we did thirty years ago, so far as its cause is concerned. There are things which we ought to know, but which we do not know about cancer. Is there any hereditary disposition in cancer? Is cancer communicable? It has been asserted that it is, and this has also been denied by other observers. We must look to the general practitioner to establish the communicability of cancer. Many cases of cancer of the uterus and penis never reach the hospitals, and if such an observation were made all over the country, what a valuable series of facts we would have in a few years, facts which would prove whether cancer is communicable or inoculable.

Are there such things as cancer houses? There are certainly cases where cancer has occurred again and again in the same house. Is it a water-borne disease? What relation does it bear to the water supply? Are certain races immune? The speaker remembered that a gentleman in Buffalo found that a large proportion of Germans had cancer, out of proportion to the other races. What relation, if any, do food habits have to the development of the disease?

Speaking from his own experience Dr. Bristow would say it is a relatively rare disease among Hebrews. Is this due to certain peculiarities of their ceremonial?

At present the microscope seems to have reached the limits of its powers of investigation in relation to this dreadful disease. The general practitioner may assist the worker in the laboratory by collecting data such as have been here briefly suggested.

DR. R. T. WHEELER said that he for one was glad to indorse Dr. Ager's suggestion for the formation of what might be called a Bureau of Co-operation for the speedy settlement of some of those medical problems which face us now. There is a large amount of data, it seemed to him, which is lost to the general practitioner because we have no means of collecting and classifying it. He knew there were scores of men in general practice to-day, men who have no hospital connections or clinical opportunities, except in their own private practice, who are doing good work along original lines, and these observations and work of theirs is not collected and embodied in papers to be read before medical societies or published in medical journals. Nevertheless, the work these men are doing oftentimes should,

by some system of co-operation, be collected and classified, and the men be drawn upon further for more work, and not only these but other men, who, although they sometimes may not know it, have practical means and the desire to work out special lines, and would be willing to co-operate with other men who are interested in the same line of work.

It is hard for the busy medical man to wade through all the medical journals and, even though he did wade through them all, the findings that he would get on new treatments in that way, medical technic, etc., would be only confusing at the best. Not that he did not think medical journals have their advantage, but he thought they should be used rather for reference than for exhaustive reading. If a man does decide to adopt a new special line of treatment in any special disease, or find the value of any newly advocated method of diagnosis, he has not at his own command in his own private practice enough cases to thoroughly give him an idea of what that new system of treatment is worth, and instead of two or three cases, by our system of co-operation we could get results of 25 or 50 cases followed out under the new treatment and find what the results would be. We should by co-operation, the speaker thought, kill a few of our old medical superstitions. Medical superstitions seem to be as hard to cure as the superstitions of the laity. Let us see what the Widal and Diazo reactions are worth. Our society, Dr. Wheeler said, numbers men who would be willing to work this problem out. We cannot look to our medical colleges or to our endowed laboratories for this class of work, because these are problems we meet every day in practice, and they are not strictly laboratory problems. The Medical Society of the County of Kings has a strong, enthusiastic organization, and it should be the leader in original research.

DR. L. C. AGER, in conclusion, said that Dr. Van Cott spoke of some co-operative work in the way of a central laboratory. He had that in mind. That was one of the things we might look for sooner or later, and we should certainly have such a method of doing certain things in this city. It would be the economical way of doing things. In any association of common interests in the business world that would be the method adopted. There would be a clearing house of some kind.

The Hartford Medical Society has a delightfully complete building. There is a general laboratory which is for the free use of all the mem-

bers of the society. The members are free to do any laboratory work they want to do, and there is a pathologist in charge who assists them as much as possible. In a large organization of this kind that could be taken up.

Following up the literature—that would be one of the most useful things that could be done at present. In Boston, owing to the large size of the city and its suburbs, the Middlesex Society has resolved itself into a business organization, which meets a few times a year and is divided up into reading clubs, in which every member is expected and obliged to follow up the literature of certain subjects or some specific literature so many times a year.

## THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, DECEMBER 7, 1905.

The President, T. B. SPENCE, M.D., in the Chair.

### NEURO-FIBROMA OF THE SCIATIC NERVE.

Dr. G. R. FOWLER presented a male patient, 23 years old, a stenographer by occupation. There was nothing, he said, special in his previous history bearing on the condition for which he sought relief at the surgeon's hands.

About three years ago the patient first noticed pains in his right leg. These pains were slight in character, and were confined particularly to the distribution of the internal popliteal and tibial nerves. After suffering for some months a diagnosis of neuritis was made. Although there was no history of syphilis he was put upon anti-syphilitic treatment. This, however, proved to be of no value. He finally came under the care of Dr. A. D. Salmon, who referred him to Dr. William Browning for an opinion. The diagnosis originally made of neuritis was still maintained. Dr. Salmon asked him to call upon the speaker, and see if there were any measures of relief of a surgical nature that might be attempted in the case. He came to Dr. Fowler about the 18th of last May.

At that time his story was that the pains had increased greatly, particularly in the last seven months, and that in last May he noticed a lump in the popliteal space, slight and small, but accompanying it was more or less inability to extend the limb. Then he recollected that for some time past he was not able to extend the limb entirely, and a

gradually increasing limp had come on, so that finally the tumor was quite palpable; the slight flexion seemed to be due entirely to it. He was unable to balance himself on the ball of the foot of the right side, and there was more or less weakness in the muscles of the limb, which made his gait somewhat uncertain.

Upon examination, the speaker found a decided projection, hard and rather obscure as to its deeper boundaries, presenting itself in the popliteal space. There was quite a marked rigidity of the flexor muscles of the leg and inability to completely extend the limb.

Dr. Fowler had the patient admitted to the Brooklyn Hospital, and under an anesthetic was still unable to completely extend the limb, but with the semi-membranosus and semitendinosus muscles more completely relaxed by the aid of an anesthetic he was able to trace a rather illy defined tumor from the popliteal space in an upward direction. An incision was made over the most prominent part and the growth exposed. In following it in an upward direction, it was found to run alongside of what seemed to be a half-sized sciatic nerve. Following it up still further he finally reached the lower border of the piriformis, and still the last of the growth had not been exposed, although at this point it tapered down to a considerably smaller size. Upon lifting the piriformis and pursuing the search still further, he finally came to what appeared to be a second sciatic nerve lying to the outer side of that which the growth occupied. Cutting down upon the latter he was able to divide it across, about an inch above the limit of the growth. Turning his attention now in a downward direction, he pursued the growth below the popliteal space, and finally in the middle of the calf found its lower termination, where also terminated apparently the sciatic nerve itself. It was divided at that point and the growth removed. It was then believed that there was a high division of the sciatic nerve, either at the sacral plexus or just above the piriformis. At all events in so far as he was able to trace up to the sciatic notch, the nerve was double, and that the internal portion of it, or what would correspond to the internal popliteal in the case of a division of the nerve in the lower third of the thigh, was the site of the growth.

In view of these circumstances, the thought arose as to what the effect would be upon the muscular structures and their function following the removal of so large a portion of what would be the internal popliteal division of a nor-



mal nerve. Taking advantage of the presence of a rather large nerve trunk, corresponding to the *communicans peronei* branch of the external popliteal, this was split and divided half across, the split portion being attached by sutures to the stump of the internal popliteal, from which the growth had been severed.

The further history of the case is practically uneventful. The man is making an excellently good recovery. Healing is complete, and rather to the speaker's surprise, before the healing process was complete, and practically within the first week following the operation he seemed to have more or less complete control of all the movements of the foot and toes. The apparent early restoration of the function of the terminal portion of the internal popliteal nerve is rather surprising. If it is not due to an immediate restoration of function through the *communicans peronei* branch, it has something to do, perhaps, with an abnormal nerve distribution aside from that which relates to a double division of the sciatic. While practically the sciatic nerve itself is two nerves, although apparently one large cord separable physiologically into two large nerve trunks, which finally become the internal and external popliteal, this anatomic division is not so common. Dr. Fowler has met it two or three times in operative surgical work. Probably the anatomist has met with it much more frequently. It would be reasonable to suppose that it might be so, since it has quite a distinct physiologic division.

#### CARCINOMA OF TONGUE.

DR. G. R. FOWLER presented a specimen from a man 51 years old, who came to him with an indifferant family history. He had always been in good health, and smoked cigars excessively until one year ago, when he noticed a small lump at the left side of the tongue. It grew rapidly since December 1st.

The special point of interest in presenting the specimen was this: In the attempt to extend the incision well beyond the limits of the growth, both posteriorly and to the other side of the tongue, about two-thirds of the organ itself was embraced in the incisions. The Whitehead method was followed. The tip of the tongue upon the sound side was secured by the introduction of a silk thread traction suture, and the part to be removed was also secured in the same manner. Whitehouse does not think it worth while to secure the part behind the tongue at which the cross section is to be made. Dr. Fow-

ler also believed at that time that this precaution was not necessary; but he now believes it to be a wise precaution. There was considerable hemorrhage from the stump in this case, and, owing to the impossibility of maintaining deep anesthesia and difficulty in securing the lingual artery, the patient lost considerable blood. The difficulties were enhanced by the fact that no mouth gag could be adapted to his jaw. Most of the patient's teeth were gone, and those that remained were carious and loose, some of these parting entirely from the sockets during the operation.

A portion of the remainder of the tongue became gangrenous. It was only with the greatest difficulty and by the constant application of 10 per cent. solution of zinc chlorid, and keeping the mouth packed with gauze wrung out of the same, and spraying every half hour with peroxide of hydrogen and potassium permanganate solution, that the mouth was kept clean and enabled the patient to escape septic pneumonia. He is now convalescent and will leave the hospital in a few days.

In this connection Dr. Fowler found it exceedingly convenient in making this frequent spray thoroughly efficient to use a tank of oxygen, instead of a hand bulb to the atomizer, for the purpose of forcing the spray into the cavity of the mouth. It is a simple mechanical suggestion which he has found exceedingly useful. He did not know that the oxygen increases the efficiency of the spray, but it makes the work easier for the nurse and is more advantageous to the patient.

The use of the 10 per cent. zinc solution almost constantly in the mouth might awaken a feeling of apprehension at first, but it seemed to be entirely safe in this instance. Getting the patient out of bed the next day after operation, having him sit up with his head thrown forward was a feature in the after treatment of this case. Of course, this was suggested by the possibility of septic pneumonia and the desire to take every possible precaution against the supervention of this the most dreaded of all complications of extensive operations about the mouth.

#### CARCINOMA OF THE TONGUE.

DR. J. S. WIGHT presented the case of a man, 69 years old, whom he first saw on June 6, 1905. He came to him with a history of two years, prior to that time having had an ulceration appear under the tongue, which had extended, and when the speaker saw him it involved the right half of the tongue, the tonsil on that side

and the fauces, the glandular structures under the tongue and the submaxillary glands. June 22 he did a Kocher operation, and removed the entire tongue down to the hyoid bone, together with the glands. On October 11 the cancer recurred in the floor of the mouth and it grew very rapidly. It was two weeks when he saw the patient again, and his mouth was then pretty well filled up with the mass. He injected it with a 5 per cent. carbolyzed vaseline preparation. That is one of the main reasons why he brought him to the meeting this evening. The mass now has gone down, and has left a fairly healthy looking granulating surface. Eight injections in all, of about 20 minims each, were given. In two days the area injected appeared dark and a slough occurred, but it left a healthy granulating surface underneath. Then the whole mass contracted down.

The speaker stated that he had some experiments made, and found that this preparation is radio-active, that it is hyperisotonic to the juices of the body in general, the blood serum. If applied to an œdematous surface, it will draw the water out of it and will contract the tissue. It is also insoluble and non-absorbable, and it retains the carbolic in position in relation to the tissues for an indefinite length of time, or until it escapes with the slough or comes away with the mass or an opening in the surface.

The patient has been fairly comfortable. He is able to take plenty of nourishment and transact his business. When Dr. Wright first saw him he had eaten very little, and for one week before the operation not a mouthful had passed down his throat.

#### PLEURECTOMY FOR EMPYEMA.

DR. R. S. FOWLER presented the case of a patient whom he operated on July 9, 1904. At that time a section of the rib was removed and the case drained. The patient left the hospital before the wound had healed with a discharging sinus, and the speaker lost track of him until January, 1905, when he appeared at the Brooklyn Hospital. At that time Dr. Fowler excised the sixth and seventh ribs and did a pleurectomy, but the pleurectomy was only partial because of the dense adhesions. In severing these adhesions he opened into the lung. He promptly packed the wound and sent the patient back to the ward. Again, on March 14, he endeavored to do a pleurectomy, and again got into the lung after removing part of the fibrous mass. Again, on August 18, 1905, an operation was attempted to

dissect out the rest of the visceral pleura, and this was successful. Fortunately he did not get into the lung until the mass was practically excised. Healing was then effected after two months. The case, originally a tuberculous one, is now reported cured.

#### THE RELATION OF BLOOD EXAMINATION TO SURGICAL DIAGNOSIS.

DR. JOHN E. JENNINGS read a paper with the above title. See *BROOKLYN MEDICAL JOURNAL*, this issue, page 86.

#### *Discussion.*

DR. J. M. VAN COTT said that the most excellent paper which had been read hardly admitted of a great deal of discussion. He could heartily endorse all that the writer had said as to the value of hæmatology in surgical work. He thought that some men who are inclined to condemn it, like Deaver of Philadelphia, are not thoroughly well aware of just exactly what the meaning of all these things is. Leucocytosis is a reactionary condition, which is the outcome of an effort on the part of the system to neutralize certain noxious materials. When inflammation occurs, and the blood in its examination fails to show a leucocytosis, it is often due to the fact that there is in the patient himself a lack of resistance. It is not simply a lack of local resistance, but there is a lack of power on the part of the individual to produce a leucocytosis. It has been shown that the leucocytes are not increased without reason. The polymorphonuclear neutrophiles act both as phagocytes and to neutralize toxins, or poisonous substances, which are produced by pathogenic organisms. They not only have the power of eating and digesting bacteria, but they are bacteriolytic, they pour out a substance which acts as a lysin to the bacteria.

As to the question of leucocytosis in some malignant growths; sometimes it happens that the leucocytosis is a polymorphonuclear neutrophile, whereas in others it is a lymphocyte increase. In the first condition there is a possible infection of the part itself; in other words, a polymorphonuclear neutrophile increase obtains as a result of the infection of the mass, whereas in lymphocytosis one has to think of a coagulation necrosis in the mass itself, and an effort on the part of the lymphocytes to carry off the debris which occurs as a result of cell death; because it has been proven by Metchnikoff that lymphocytosis occurs in cases where dead cells obtain, which are derived from the somatic cells. His experiments were of two



kinds: he injected the peritoneal cavities of guinea pigs with cholera vibrio and got a polymorphonuclear neutrophile leucocytosis, and other pigs he injected the peritoneal cavity with the blood of rabbits, and got a lymphocytosis. The point is as to the diagnostic value to the surgeon if the leucocyte count in malignancy, which would seem doubtful excepting where a marked lymphocytosis was present, and as a means of determining that a tumor has become septic.

As to the other points which were brought up there can be no possible doubt. He supposed it is now a matter which is fixed and settled, that when the hemoglobin is below a certain point the surgeon does not operate. Summing up all the facts that Dr. Jennings stated, it is impossible to do anything but pay a handsome tribute to the work Ehrlich instituted in this examination of the blood.

Many things in the human economy would have remained forever buried but for the work of such men as Cabot, Ewing, Da Costa, and others, and as these men keep on with their researches, it becomes growingly evident that blood analysis is certainly to be regarded as one of the methods in diagnosis that the surgeon must take cognizance of, if he does his work properly.

The speaker remembered the case of a young woman who had an infection of the finger. The blood was examined and there was no leucocytosis. The wound healed, and some weeks afterward she began to develop a pain in the side of the thorax. She then had a recount which showed 9,000 leucocytes. She developed a pleurisy, the fluid was aspirated and a pure culture of the staphylococcus albus was obtained. A septic infarction of the lung occurred, which went on to a pneumonia, from which the woman died.

In this case the count was low, and the reason was not because of unreliability of the blood analysis, but simply that this woman had a very low vital resistance. She did not have the power to get up a leucocytosis, and yet when it came to a bacteriological examination of the fluid in her chest, an ordinary organism was found, which oftentimes produces such effects, and had evidently come from the finger originally.

One other important point Dr. Van Cott said was the occurrence of a very rapid invasion of the system with organisms, leaving no time for leucocytosis to develop. Lubarsch in his recent work on Pathology draws particular attention to this fact. If the organisms which invade the system be very virulent, and if the invasion be rapid so that it will spread throughout the tissues

generally, death may occur without any local reaction whatever, for the reason that the toxine is so vicious and produces such a tremendous effect on the somatic cells of the body as a whole, that there is no time for the occurrence of leucocytosis.

DR. A. T. BRISTOW said that he would like to say a word with regard to the current notion as to the leucocytosis of typhoid. We hear it commonly stated, as the reader of the paper said, that the leucocyte count of typhoid is always low. In many cases, perhaps a majority of cases, normal leucocyte count of typhoid is 4,000, but it does not by any means follow that all cases have such a low leucocyte count. The speaker had seen more than one case which as early as the tenth day had a leucocytosis of from 10,000 to 12,000. Therefore, in his opinion, it was wise to have an early leucocyte count in all cases of typhoid, in order to know what the leucocytosis of each case may be, and this count should be made long before we expect perforation or deep ulceration. Where an early leucocytosis of 10,000 has been found a rise in the count to 12,000 with colicky pains in the abdomen does not have the same significance as a leucocytosis of 12,000 following an early count of 4,000. In the first case we should not be much influenced by the count. In the latter the count might decide us on the advisability of the operation.

As far as appendicitis is concerned, it is possible to have abscess formation in the presence of a low count. The largest appendical abscess that he had ever opened contained perhaps a pint of pus. Yet this man had a leucocytosis of but 11,000.

One word further, the speaker said, about an interesting case of his own, which illustrates the leucocytosis which occurs in recurrent malignant growths, particularly internal recurrences. Some years ago he operated on a woman for carcinoma of the breast, doing the usual Halsted operation. The case progressed favorably so far as the operation was concerned. There was no temperature; the wound healed. Finally, perhaps five or six weeks after the operation, the patient suddenly began to run violent alternations of temperature, such as is seen in malignant endocarditis. The leucocyte count rose to 22,000 and 24,000. There was no suppurative process. At the autopsy recurrent areas of carcinoma were found in the meninges, in both lungs, in the liver. In fact, there was a general carcinosis.

DR. G. R. FOWLER stated that the interesting point in the paper related particularly to the ques-

tion of diagnosis, and especially the diagnosis of those acute conditions which, under other circumstances, would be somewhat obscure.

In the present state of knowledge on the subject, the two points we seek for when we ask for a blood examination in acute cases are, first, the leucocyte count, and, second, the polymorphonuclear neutrophile percentage. Without going deeply into the subject he wanted to say that he had never regarded the leucocyte count itself, say, for instance, in appendicitis, as of very great importance in the diagnosis. Its presence simply indicated to him that the patient's vital resistance was good, and that Nature was sending out an army corps to attack the invaders, in the shape of micro-organisms. In the absence of a leucocytosis there might be just as great a disturbance, but simply inability on the part of the organism to take care of it. With the presence of a polymorphonuclear neutrophile percentage above 80 he has always expected to find a suppurative or a gangrenous inflammatory condition. He could recall now but one case in which that was not found present in a case that was diagnosed as appendicitis, and that was a case of ectopic gestation, in which the highest polymorphonuclear neutrophile percentage he ever met with was present, namely over 95 per cent., so that while one may get a high leucocyte count without suppurative or gangrenous conditions being present, a high polymorphonuclear neutrophile percentage is not a feature of the case, certainly not to the extent of up in the 85 or 95 per cent., without the presence of either suppuration or gangrene. The diagnosis, as well as the demands for operation, will sometimes turn upon this point alone, in his judgment. Dr. Sondern, who has been making a special study of this subject, has tabulated the results of his investigations in a large number of cases, and the matter of acute suppurative conditions is fully covered from mastoid disease down. The speaker was particularly struck with the way in which Dr. Sondern's views coincided with those which had resulted from his own experience. Dr. Fowler admitted that the number of cases in his experience is not sufficiently large perhaps to insist that his belief is well grounded, but he would say that the further he goes on, the more he is impressed with the truth of the general statement that a leucocytosis means a good deal or it may mean nothing, but that a polymorphonuclear neutrophile percentage, in his experience, always means there is either suppurative or gangrenous inflammation present, or concealed hemorrhage.

Dr. Fowler, in answer to a question as to the height of leucocyte count in ectopic gestation, said he did not recollect just what the leucocyte count was in the case he had in mind where there was 96 per cent. of polymorphonuclear neutrophiles, but it was not strikingly high, certainly. It was not as pronounced as the percentage of polynuclears.

DR. W. L. DUFFIELD said that, bearing in mind that very often a leucocyte count is of value within a short time after operation, three or four years ago he undertook to determine how much of a wound or granulating area would cause a leucocytosis, and though his experience was very limited, embracing only eight or ten cases, he found that wherever there was even a slight superficial wound, where even all the symptoms of sepsis had subsided, if there had been any in the beginning, there was a leucocytosis of between 16,000 and 20,000. One was a case where some slight operation had been done on the hand, leaving a granulating area, a case not septic at any time. Two of the cases were wounds following operation for appendicitis, where the wound had become simply a granulating superficial wound, and in all the cases he examined there was a leucocytosis above 16,000.

DR. J. E. JENNINGS, closing, said that he had little to add, except to say that with regard to the value of the differential count both of lymphocytes and polymorphonuclear neutrophiles, he was somewhat skeptical. Dr. Van Cott spoke of the value of the lymphocyte count and Metchnikoff's theory as to its causation, but there were several things which bumped against a theory of that kind, for instance, how shall we account for the lymphocytosis which we encounter in whooping cough? Before the cough appears we find a lymphocytosis which is high, which is a matter to be thought about.

Dr. Bristow had spoken of each particular case of typhoid having a relative leucocytosis of its own and of the value of finding that out early in the case as one does a rising or falling temperature. The speaker thought that valuable, not only in typhoid, but in other cases that we expect to watch for a period of time.

With regard to the polymorphonuclear neutrophile count, the position of Cabot, Da Costa, Ewing and the men who have done most of the blood work in this country is, that practically all cases of leucocytosis over 15,000 show an increased polymorphonuclear neutrophile count of 80. We see some cases in which an increased polymorphonuclear leucocytosis of over 80 per



cent. is present without there being a leucocytosis of over 10,000, and these cases are to be considered as equivalent to leucocytosis, and we see a certain number of cases of increased leucocytosis of 15,000 or over without an increased polymorphonuclear neutrophile count. Sondern is of the opinion, as Dr. Fowler stated, and Dr. Fowler agreed with him, that the polymorphonuclear neutrophile rise is an exceedingly important thing in sepsis. It deserves considerable further investigation.

The matter of the appendical abscess that Dr. Bristow reported with a count of 11,000 bore out a point Dr. Jennings was anxious to make, that in appendical abscesses and in suppurative cholecystitis and other walled-off conditions, the leucocyte count is much less to be depended upon than in the early infections.

#### NEPHRECTOMY FOR RUPTURED KIDNEY.

DR. C. P. GILDERSLEEVE reported the following case: T. D. entered St. Peter's Hospital May 12, 1902. He saw him the day before and obtained the following history: While engaged in a boxing exhibition the previous February, he was struck by his opponent in the left lumbar region. He partially lost consciousness, but recovered in a few minutes and went home unattended. He passed blood in his urine from the start and a mass developed which gradually increased in size until the speaker saw him, at which time it completely filled the space between the lower border of the ribs and the crest of the ileum, and extended well toward the median line in front. When he entered the hospital he had a temperature of 103 degrees, pulse 120, and was having chills. He was put under ether soon after admission, a free incision was made, and a large quantity of blood clots and broken down material were removed and a large drain inserted.

The speaker was in hopes that the patient's condition would improve, both generally and locally, believing that he would stand a better chance for recovery from a nephrectomy if his septic condition could be lessened. The size of this mass, together with the surrounding adhesions, made it doubtful as to whether or not the peritoneal cavity would not be largely invaded when nephrectomy was performed. The patient passed about twenty ounces of urine the next day, at first considerably tinged with blood, but becoming less so for 24 hours. On the 15th, which was three days after the operation, the patient had a chill and the temperature went to 104 degrees, so he removed the kidney at once. The

man passed about twelve ounces of urine the next day, but that night the speaker was called to the hospital and told that the patient had passed no urine since noon. The bladder appeared to be empty and the catheter revealed the fact that it was empty. The man died at the end of thirty-six hours. His death, Dr. Gildersleeve thought, resulted from the man's profound sepsis and was hastened by suppression. The suppression alone would not have proved fatal so soon, in his opinion.

#### RUPTURED GALL BLADDER.

DR. C. P. GILDERSLEEVE reported the following case: Mrs. A., age 62, entered St. Peter's Hospital February 13, suffering from a painful swelling in her right side, extending from the lower border of the ribs downward to a point just below the anterior superior spine and inward to the median line. She came in with a diagnosis of appendicitis. She was not jaundiced, the temperature was normal, there was very little pain and only moderate tenderness upon pressure. She was a very fleshy woman, and presented the appearance of good, general health. The speaker's diagnosis was a probably distended gall bladder, although he had never seen such complete distention attended with such mild symptoms. He set the operation down for the following morning, and upon his arrival in the morning he found that the swelling, together with the symptoms which had resulted therefrom, had entirely disappeared, and it was apparent that a very considerable amount of material of some character had suddenly been thrown into the peritoneal cavity. He made an incision about midway between McBurney's point and the lower border of the ribs, and found a very large, thin-walled, ruptured gall bladder. He inserted the ends of his three fingers through the opening into the bladder, removed several moderate-sized stones, and found a very considerable amount of bile-stained fluid in the pelvic cavity. This was removed and search made for any stones which might have been washed from the bladder. The various ducts were examined and appeared to be free. He stitched part of the cystic tear together with chromic catgut, leaving a small opening in which he inserted a drain, sewed the abdominal wound with silk worm gut, and at the point in which the drain was inserted, he let a stitch on each side extend through the gall bladder. He removed the sutures at the end of a week and got primary union, except at the seat of the drain. The temperature remained normal. The

drain was removed at the end of three weeks, and she was discharged cured March 21.

#### RUPTURE OF KIDNEY.

DR. L. S. PILCHER reported the following case: One morning last July, a boy about 16 years of age, whom he presented now for examination to the Society, was brought to the German Hospital, with the statement that he had just been kicked by a horse in the flank. He was in a condition of marked shock, and after his entrance to the hospital the catheter removed bloody urine from his bladder. Within a short time thereafter the speaker saw him, at which time he had rallied somewhat from his shock, but there was a fullness, tenderness and ecchymosis in the region of the right kidney with a certain amount of muscular rigidity over the region of the kidney. All the conditions pointed to a serious contusion of the kidney, and it seemed to him, under the circumstances, the proper thing to do was to expose the kidney.

Making the usual lumbar incision for exposing the kidney, after cutting through the superficial layers and coming down to the peri-renal region, he found himself in a mass of extensive hematoma, and lying loose within the hematoma a fleshy mass, which he identified as the lower portion of the kidney completely torn off. Upon the removal of the blood clot and sponging out the cavity which had been opened up by the manipulations, an active hemorrhage was going on from the remnant of the kidney that was still attached, for the control of which it was evident that the rest of that kidney should be removed, which he proceeded to do at once. He now presented this ruptured kidney torn completely in two, both fragments of it, and the patient himself, who made an uncomplicated recovery after the nephrectomy. The cavity was tamponed with iodoform gauze; the tampon slowly loosened as the days went by; the parts contracted down upon it, and there followed an uncomplicated healing.

#### IMPERFORATE HYMEN.

Dr. WM. S. HUBBARD reported the following case: Bertha J., 20 years, Swede, of good physique, doing general housework, had never menstruated. For four years she had suffered pain in the head, back and lower abdomen constantly; this pain increasing at regular monthly intervals. She had consulted several physicians, none of whom had suggested a local examination. Friends here advised her to see their physician, Dr. Keyes, who on examination found the labia majora and

minora and clitoris normal in size and appearance, the hymen imperforate, tough and bulging. A digital examination per rectum revealed a fluid mass filling the pelvis and extending high up. The uterus and appendages could not be made out. Dr. Hubbard was asked to operate.

The parts were rendered as sterile as possible, a crucial incision was made and the edges seared with the Paquelin cautery. The fluid, dark brown in color and of a viscid consistency, was allowed to drain slowly until about a quart had been collected. The vagina was found much distended, and the cervix uteri would admit the examining finger for about an inch. The uterus itself was not enlarged. The vagina was irrigated with a quart of warm sterile water and the patient kept in bed five days with sterile gauze pads to the vulva, and her recovery was complete and satisfactory. She has since menstruated normally.

#### BROOKLYN PATHOLOGICAL SOCIETY.

NOVEMBER, 1905.

(Continued from page 77.)

DR. GUNNISON, Principal of Erasmus Hall High School, said that he never rose to speak to an educational subject in which he felt less able to add anything. The whole discussion had been somewhat different from what he had anticipated, and, as he had said, the more he thought and the more he listened to the speeches that had been made, the more he felt utterly helpless to offer a word of hopefulness in regard to the matter. He realized perhaps more than he ever had, the seriousness of the subject and what tremendous difficulties hedged it about. The thing that most impressed him was this: that the question was one of the great educational questions, not education in the sense as belonging simply to those known technically as "educators," but to all men and women who are interested in the proper development and training of the young. The remedy must lie in the proper training and development of the young people of this country.

This, therefore, it seemed to him, is primarily and almost entirely an educational question in its broadest sense, in which the training of the teacher is required, more perhaps than either that of the doctor or the minister. And it is for one, too, whose special work is the training along moral lines, and he had an idea that the great burden and the great hope in this matter rests with those



teachers who are especially trained along that line.

The speaker said that he could not feel that he could see any clear solution, he could hardly offer a suggestion. He looked back at his own training, and in the schools, and he remembered with perfect horror the methods that were used along these lines in his boyhood, and that are occasionally used now and have been suggested, perhaps, in the discussion to-night.

The speaker could not think of any remedy that was worse than for the principal of a school to call his boys together in a quiet and mysterious way, with the suggestion that there is something novel and unnatural, and that he must take them quietly and explain to the boys these functions that have been suggested to-night. His experience, not as a teacher, but as a boy, was that one of the worst things we could get into a school-boy's head would be that it was the function of the principal to intimate to a great crowd of boys that he was to teach them novelties.

He felt also that there must be something wrong in the way we are getting at this proposition. Of course, Dr. Keyes, who led the discussion so ably and interestingly, admitted it is simply a question of immediate protection rather than radical cure. It seemed to him that if there is any worth in a discussion of this sort, as a general proposition it should be something radical; therefore, it occurred to him that we must look at it further down, but are we not, he said, all looking at it possibly in the wrong way. Here is a function that is just as natural as the air and the flowing water. The idea that these functions that are coming upon the young are not normal, is wrong; they are the most natural things in the world, and yet we, as teachers and as ministers and as doctors are saying to-night that there is something about it that would call upon us to take sections of pupils apart and admit them to knowledge of some sort of mystery. Dr. Gunnison inquired if there was not something wrong on that proposition. If the children are brought up normally, brought up as he thought they should be in educational matters, if we could give them normal conditions, if we could bring them up and educate them together, he failed to see why at a certain period everything should suddenly become abnormal and that we must change our methods. We certainly have to do this now; that is the condition of things, but it is fundamentally abnormal. As doctors and ministers we have introduced and placed upon this country an absolutely abnormal con-

dition of things in some way or other. We know that, with the uncivilized and savages, these things are simple matters. He had been told that among these people in matters of birth there is no need of an educated physician for the purpose of attending to the delivery of children; that it was a natural sort of thing. He did not know that he was correct in this, but he had been told so. If this is so, is it not possible that our higher civilization has blundered in introducing an abnormal condition of affairs, and the result is the one we are discussing.

DR. E. L. KEYES, Jr., in conclusion, said that the prevailing note of what had been said was the prevailing note of what everybody had said who had spoken upon the subject at the various meetings held in New York. Everybody is more or less interested, more or less anxious to learn what to do in what we all recognize as a very difficult problem, but nobody knows what is to be done. That was exactly why he was interested in this Society, because we all have a lot of theoretical notions, we all have a lot of preconceived ideas that we have gotten generally from our own experience, and we want to get together and swap ideas, devise some system of trying these ideas upon the dear public and see how they work. That is the only way in which we can get ahead. At present we have not gotten ahead. We have simply begun to talk, and he believed we will have to keep on talking for a long time before we get anywhere.

The speaker said that the remarks of the various gentlemen suggested one or two things to his mind. In the first place he had not attempted to present anything about the subject except the pure skeleton. He had not tried to explain, to elucidate, to instruct the gentlemen as to anything they could do. These details he had purposely avoided, as they would carry him too deep into the subject.

At a meeting in New York a member of the Board of Education was present, and he gave a very good practical talk. He had worked, he said, over this subject a good deal in his own mind, and gave as a fundamental truth that he did not believe much could be done by deterrent instruction in the way of frightening children. He did not think frightening a child would do any good in the least. However, a patient of the speaker a short time ago said that the only impression on his mind had been his father's taking him to an anatomical museum where he saw plaster casts and figures, and it had scared him so that he remained good for a long time. An

enthusiastic educator in Paris took his pupils to a museum which had the most ghastly collection of wax models showing up venereal and other diseases, and it was related by this teacher that one of his young men was so impressed by this exhibition, that he went for the first time in his life to a house of ill-fame and got syphilis. And so it works out.

A couple of years ago Dr. Keyes, while in Washington talked to a physician who at one time had been in charge of a reformatory. He discovered that the practices of the boys were revolting. He talked to the boys in a common-sense sort of way and appealed to the honor and sense of decency of the boys. He did not talk to scare them and he did not talk about religion, because it was not appropriate to him, but he talked boyish decency and honor. He told them they must behave decently, told them that he knew what had been going on, that they were a dirty good-for-nothing sort of brutes and must stop it. He told the speaker that he met a number of these boys years afterward, and on several occasions had been thanked by these men, who had since grown up, for these talks. They told him that he made them look upon the subject from a point of view they had not seen before.

Dr. Keyes said that Dr. Waters asked for suggestions to the Church. He could not make any suggestion to the Church, except to repeat what several ministers who had spoken at the meetings had told them, and that was that they had talked to parents and had managed in a great number of individual cases to persuade men to look at this thing from a sensible point of view and bring their boys up as they should be brought up. As to public work the speaker thought it would be very difficult.

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## THE BROOKLYN PATHOLOGICAL SOCIETY.

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463D REGULAR MEETING—DECEMBER 14, 1905.

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C. L. FINCKE, Editor.

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The President, HENRY G. WEBSTER, M.D., in the Chair.

CLINICAL REPORTS OF SARCOMA OF THE KIDNEY IN CHILDREN, BY DR. A. H. BOGART.

(See this issue, page 92.)

### *Discussion.*

DR. J. B. BOGART said that the first case was

one in which he operated. He was led to undertake surgical measures by Abbe's report of two successful operations in very large tumors in very young children. He made a preliminary anterior incision for exploration, and the success of the operation seemed to be possible, although the tumor was very large. He made the same incision that the reporter had called attention to from the erector spinæ forward, which gave ample access to the tumor. The capsule, the veins of which were very greatly distended, stripped off easily until he came to the descending and transverse colon, and there his trouble began. He was unable to separate these structures from the kidney tissues. In sticking close to the tumor it broke down, and a large quantity of soft material escaped, and hemorrhage started, which he was unable to control except by means of gauze packing, and the patient survived the operation but a short time.

Even at the autopsy it was impossible to separate the large intestine from the growth. That one experience cooled his ardor for operations for sarcoma of the kidney, so that when one of these cases, the last one reported, was admitted to his service at the hospital, he declined to operate, but he told Dr. A. H. Bogart that if he wanted to try his luck he was free to go ahead. He did so, and the speaker was present and assisted at the operation, and the contrast between the two operations could not have been greater. As the reporter had said the operation occupied but thirteen minutes. It was extremely simple, and they had every reason to believe that the child would make an uninterrupted recovery. The child's death was a great surprise to both, and was not satisfactorily accounted for by anything in the history.

He agreed with Dr. A. H. Bogart that the only thing to do for these cases is to operate on them, and also that we ought to get them earlier. It seems very remarkable that at this late day we are still getting cases of malignant disease, well marked, where physicians have recommended patients to wait for a more certain diagnosis. The latest case of carcinoma of the breast that he had operated on was one such, in which there was a large tumor of the breast and several large glands in the axilla, and yet the physician had recommended the patient to wait until a more certain diagnosis could be made. When the time comes that the surgeon shall see these cases as soon as the physician sees them, he thought our mortality and our cures would make a better showing.



DR. J. D. SULLIVAN stated that he saw a case of interest in connection with this subject. Eight or nine years ago a young lady about 18 or 19 years of age called on him. She had been suffering for about a year, and had been the rounds of many physicians in Brooklyn, and was treated for a great variety of ailments. He made a diagnosis of surgical kidney without coming to any finer conclusion, and as she was suffering a great deal not only from the pain in the kidney, but also from nausea and digestive disturbances, he decided to cut down on the tumor and see what the trouble was. After exposing the mass he found it was a sarcoma of the kidney. The kidney was removed quite readily by a posterior oblique incision, and the patient left the table in very good condition, but the next day she presented all the symptoms of suppression of urine, constant vomiting, and even the rectum was so irritable that nothing could be retained that way. He decided on nourishing her by inunctions, and made a mixture of cream, codliver oil and whiskey, and had that rubbed in all over the body for two or three days. He kept her alive on that until the other kidney began to act. On the third day she passed some urine. She then made a fairly good recovery and was quite well for about a year. At the end of a year she began to show symptoms of trouble in the other kidney, which went on gradually until about eighteen months after the operation, when she died. The speaker thought if the diagnosis had been made sooner and the kidney removed early, she might have made a more permanent recovery. As it was she did very well.

## LONG ISLAND MEDICAL SOCIETY.

JOHN R. STIVERS, M.D., EDITOR.

The 142d meeting of the Long Island Medical Society was held Jan. 2, '06, the President, Dr. E. E. Cornwall, in the chair.

The evening was devoted to the discussion of Headaches (first) From the Standpoint of the Surgeon. By Dr. W. E. Butler.

There are two classes of headache; direct and indirect. The direct causes are the direct injuries to the head due to fractures or tumors pressing on the brain, or any inflammation of the brain causing pressure; and the indirect causes being disturbances in the circulation of the brain, that is, outside tumors, toxins in the blood, including the bile absorbed from an obstructive jaundice,

and renal calculi causing obstruction to the urine. Any gastric tumor like carcinoma and gastric ulcer. Reflex disturbances from the uterus and ovarian region. Fecal impaction. Fibroid or large retroverted uterus pressing against the rectum will cause headaches. Trifacial neuralgia would come under both heads. It may be caused by tumors or exostoses or direct inflammatory lesion.

Under the head of toxins, of course, gall stones are to be removed where they produce symptoms. Renal calculi with obstruction to the urine should call for operative interference. Gastric carcinoma is a remote cause of headache. We have fractures of the spine with pressure on the cord and inflammatory exudates thrown out. These are purely surgical. The principal cause of headache from this point of view would be fracture of the skull in direct injuries. We may here have marked depression with no headache. They are frequently brought in with drowsiness but no headache. Other cases may have a slight laceration of the brain tissue and have tremendous headache. These cases are, however, not typical. Any blood clot causing pressure will cause headache, and it is noticed where there is a slow bleeding that the headache is progressive as the pressure on the brain increases. Any injury of the skull with concussion will produce headache. If there is laceration of the brain tissue we get a marked headache continuing for a long time. Any inflammatory lesion will produce headache, and the more marked the inflammation, the greater the amount of headache. This is due to the filling up of the cranial cavity. We may have from this an acute abscess, which produces an awful headache, and the patient goes into convulsions and lapses into unconsciousness. We may have extension of an erysipelas up through the nose into the brain, or extension from mastoid or nasal disease. An encephalitis itself is an inflammation extending from a clot in the brain or injury to the meninges. Carcinoma, sarcoma and even fibroids and exostoses, and enchondroma and agiomata may all be present and produce headache by contracting the brain substance itself.

The prognosis varies. Toxines, gall stones, renal calculi must all be removed. Injuries to the spinal cord must be cured, and these diseases treated by ice and the various methods used in these conditions. Sometimes puncture will relieve it. The prognosis in skull fractures depends on the seat of fracture and the damage done to the brain structure itself. The first prognosis is

good if there is not much involvement of the brain. The final prognosis must be guarded. If we have a brain inflammation from the fracture, we may have an acute œdema of the brain. The prognosis with operation ought to be fairly good. In acute abscess the prognosis is bad because we may have an infection of the meninges. In chronic abscess prognosis is bad because we cannot get at the seat of the trouble. Prognosis from erysipelas depends on the amount of involvement. In encephalitis prognosis is rather bad. If it is mild the attack will clear up, but the patient will suffer long afterwards. As to the question of tumors of the brain, the prognosis depends on whether the tumor is malignant or benign, and the question of removing it. Trifacial neuralgia depends largely on the operative treatment. We may have success and we may not. If the operation on the external nerves can be done, we have a good prognosis, it remaining away from 10 months to 2½ years or more. The next step is to remove Mecker's ganglion. This relieves for two years more. After it returns and gets into the Gasserian ganglion, it should be either crushed or removed entirely, and put a piece of rubber tissue in the foramina. This prevents reunion of the nerve fibers. The prognosis in operation in these cases must be guarded. There is another method; the injury of the nerves with osmic acid. This has been tried with much success. The idea here is the hardening and destruction of the nerve. The treatment of the fractures depends also on the amount of injury to the dura and brain. Surgical headache depends on the cause producing it, and if we can remove the cause, we can produce a cure in all our cases.

Headache from the Standpoint of the Ophthalmologist. By Dr. Jameson. (Paper.)

Headache from the Standpoint of the Rhinologist and Aurist. By Dr. Lutz. (Paper.) Also exhibited instruments.

### *Discussion.*

DR. E. E. CORNWALL: One familiar form is headache due to disordered stomach. The ordinary stomach headache is located over both eyes, but I have observed it in one case more over the left than over the right eye. It was relieved on relieving the stomach. Syphilitic headache is one of the most intense we have ever met. It is located in the temporal region; the patient almost becomes unconscious.

DR. BRAISLIN: In connection with headache due to ear conditions, Dr. Butler did not mention certain classes of headache at the sides and base

of the cranium occurring with chronic suppuration of the middle ear and which are due to the extension of the pus through the thin bone forming the roof of the attic of the middle ear. If the ear itself is treated, the threatened brain abscess is treated. If it is operated upon and the abscess is found epidural it can be easily reached. These cases of long-continued headache we must bear in mind. They are the sort which indicate and which precede the severer conditions of brain abscess. Another condition which the speaker ran across a short time ago was a headache due to a polypus found in the ethmoid cells. The operation performed was a cleaning out of the frontal, ethmoid and sphenoid in one operation. This operation was done by one incision through the skin and two incisions through the bone. The object in this special procedure is to preserve the normal appearance of the brow so that there is very little or no deformity produced. We did not find much pus but we did get polypi and the operation relieved the patient's severe symptoms. We also find nasal spurs will sometimes cause very severe headaches. Pus in the sinuses and polypi of the nose often produce very severe forms of headache.

DR. HODGES reported the case of a young lady of 22 years who has persistent frontal headache. She wakes up in the morning with it and she has it at all times. Her nose seems to be normal. Her hemoglobin was 70 per cent., now it is 95 per cent. under iron. She also complains of flatulence. Her stomach and intestines, however, are normal. The doctor had made a rectal examination and found an acute ante flexion, and recommended dilatation and curettage.

DR. KERR: I wish to speak of the child under 5 years of age. While the child may suffer from headache, the pain is spoken of as a general pain or discomfort. Fifty per cent. of the headaches in children under 5 years are not recognized as such. The child is not able to definitely locate pain of any kind at that age. The most common form is that which comes on, lasting for a few hours, and occurs in a child, causing restlessness, and the child pulls at the hair or ears and has some rise in temperature. The attack ends with vomiting. It is simply migraine. There is another type which is similar to this and which is due to a supraorbital neuralgia, and is not often recognized in the child, yet the suffering is severe. It differs that while the former does not occur on successive days, the latter occurs periodically, and is due to a malarial infection.



# Brooklyn Medical Journal.

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BROOKLYN-NEW YORK, MARCH, 1906.

## THE INTEREST OF THE MEDICAL PROFESSION IN CIVIC AFFAIRS.

The physicians of Brooklyn are derelict in a duty which they owe not only to the good fame of the profession, but also to the interest and welfare of the community at large.

It is true that the character of our profession does not permit of our meddling too deeply in civic affairs; but our pride in this borough of homes, and the character of our training, as well as the standing of our profession in the community, should be a sufficient incentive to induce us to take an aggressive interest in that part of our civic welfare which touches the physical condition of the community.

The wonderful activity of commercial life that is throbbing throughout this borough, the erection of new bridges, the building of the subway, now nearing completion, have increased the population of our borough almost twofold since consolidation with New York into the greater city. In step with this material progress, our pride should cause us to keep equally prominent the need of improvement in hygienic matters, and of provision for the securing of comfort and health to our increased population.

When the experimental charter of Greater New York was born, the medical profession of Brooklyn was most deeply humiliated through the obnoxious theory of centralization of departments; and poor Brooklyn, without the semblance of a protest from our profession, permitted our borough to be represented in the

Health Department by merely an assistant sanitary superintendent. Her dignity, alas, was not humored even to the extent of assigning to her a deputyship.

Although we represent one and one-half millions of people on this side of the East River, we are permitted no voice, nor vote in the policy of, nor any power of initiative in, matters pertaining to the health of this borough.

It is a well-known fact that even the office which we do possess brings with it very little other than a clerkship, the incumbent of which is not permitted to express himself, even as to the character of the weather, without telephoning to New York for permission to do so.

That this injustice should be quietly suffered to exist these six years is most amazing; and it is high time that action should be established to demand our rights. In the political arena nothing whatever is obtained by requests; let us begin immediately to create public sentiment, with the assistance of the generous press of the borough, looking toward legislation in Albany, through our Assemblymen, to correct this injustice of the charter; then follow it up with persistent and aggressive demands to that end. There is no question but that an appeal to the Legislature, with concerted action of all of our medical societies of the borough, will be deferentially considered, and our wrongs will be righted.

Doesn't it seem paradoxical, as well as a great reflection upon our intelligence, that we provide three commissioners to care for our parks, while the city affords only one health commissioner for the vast territory of the greater city?

Isn't it rather putting a premium upon the lives of our trees, plants and verdure, at the expense of the vital existence of the individual, which should be pre-eminently the first consideration? New York City, so noted for its liberality in making its environments delightful, which contributes so liberally to the education of its youth, to its charitable institutions, as well as for the protection of her citizens from fire and vice, should blush with shame for providing but one health commissioner.

The Board of Health now consists of three members—the Health Commissioner, the Port Physician and the Police Commissioner.

We submit that the Police Commissioner should be eliminated from the Board, since he has never been an active member, rarely in the past attending a meeting of the Board, and because of so little common sympathy existing between these

departments; that the Board should be composed of the Port Physician and two Commissioners of Health—one to control Manhattan, the Bronx, and Richmond, while the other should guard the welfare of the vast area of Brooklyn and Queens.

When the Legislature shall be prevailed upon to submit to our demands, then let us appeal to the future mayors to consult with our parent society, representing over eight hundred physicians, in the making of appointments; so that a representative of standing in the profession, as well as one endowed with courage and integrity, will hereafter assume the duties of that office, having the sympathy of the profession, rather than be subject to the whim of a political boss.

When this will have been accomplished, the Health Department of Brooklyn will be lifted from a political dispensing agency, to a station of usefulness to the community and of honor to the incumbent.

#### THE NEW HEALTH DEPARTMENT BUILDING.

The hearts of the Brooklyn physicians and laity are gladdened by the appropriation of \$285,000 for the erection of a suitable building for the Department of Health in this borough. The plot has been secured, and represents an area of about one hundred square feet located and bounded by Willoughby Street, Fleet Street, and Flatbush Avenue. The plans, we understand, are submitted and approved, and as soon as spring arrives its erection will begin.

No department in the municipal government of this borough requires new quarters so urgently; hence, we hail this relief with feelings of mingled joy and gratification. According to the plans, the building is to be replete in its appointments and architectural design, as it should be; for the character of its function implies permanency—with a growing demand for room, in proportion to the increased population.

We welcome this edifice! But we want more than an office building: we enjoy the turkey, but we are accustomed to having it served with cranberry sauce! With the building should come a complete chemical, if not a pathological laboratory. We should have all the paraphernalia that should rightfully go with this new structure. It does seem a real imposition upon our citizens, that in the past, as well as the present, New York inspectors should look after Brooklyn's water and milk analysis. Even our diphtheritic cultures, for immediate diagnostic purposes, are required to be forwarded to Fifty-fifth Street, in

New York, from the remote stations of Brooklyn, before a diagnosis is confirmed.

These provincial methods cannot exist in a borough like Brooklyn. Let us hope that the new building will bring with it better facilities for Brooklyn, and the appointment of additional Brooklyn physicians to do Brooklyn's work.

J. R. K.

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#### RESOLUTIONS PASSED BY THE COUNCIL AND COLLEGE FACULTY OF THE L. I. COLLEGE HOSPITAL ON THE DEATH OF EZRA H. WILSON, M.D.

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The Council and College Faculty of the Long Island College Hospital, having heard with profound grief of the death of Ezra H. Wilson, M.D., have ordered the following expression of the deep sense of the loss sustained by themselves personally, the Long Island College Hospital and the Profession of Medicine, to be placed on the minutes of the Board:

Ezra H. Wilson, M.D., having distinguished himself in his preliminary studies of medicine, devoted his life to the study of pathology and bacteriology. His work along these lines, as original investigator and instructor of the youth, has given his name a high place among the honored and distinguished men of the Profession of Medicine.

For many years as a director of the Hoagland Laboratory, a member of the Council of the Long Island College Hospital, a member of the Health Board of this city, he exercised great influence for good. We feel that his untimely death has deprived us of a valued friend and worker: and the city in which he dwelt and the profession of medicine of one of those modest, earnest, able students whose work is beyond price.

ELIAS H. BARTLEY, M.D.,  
JOSEPH H. RAYMOND, M.D.,  
HENRY A. FAIRBAIRN, M.D.,  
Committee.

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#### TRIBUTE TO GEORGE RYERSON FOWLER.\*

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BY LEWIS STEPHEN PILCHER.

There is such a thing as Medical Instinct, as positive and compelling in its influence on the man as the artistic, the musical or the inventive instinct, or that of spiritual ministry, on those thus endowed. Not all who practice med-

\* Read at a Memorial Meeting held in the First Reformed Church of Brooklyn, February 18, 1906.



icine are driven by it; nor do all those influenced by it have it in equal degree. It is an instinct which makes the problems of health and disease of supreme interest; it makes the drudgery and responsibilities of practice to be full of pleasure and reward to its possessors. To those who have it not the peculiar trials and duties of the medical profession seem repellent, and the higher aims and aspirations of its votaries are incomprehensible. It has little in common with the ordinary ideas and methods of commercial life, and tried by the standards of the business world, its ideals often seem visionary and fanciful.

That special phase of the medical instinct which inspires its possessor, with trained mind and skilled hands, to dress wounds, to correct and overcome the consequences of injuries, to invade the tissues and recesses of the body and separate therefrom the results of disease, has always commanded the respect and admiration of men, though they may not understand the nature of the spirit which underlies it. The results are so tangible, visible, positive and immediate; the methods and processes are often so thrilling and awesome; the perils and responsibilities are often so manifest, that one who in any eminent degree has demonstrated his ability to labor in such a field is at once assigned a place of high consideration in any community. Nearly every medical man in the beginning of his career is attracted by such a prospect and hopes to demonstrate an ability for such work.

To but very few, however, is it given to arrive at the goal. To reach the end means the possession of a tenacity of purpose, an inflexibility of will, a steadiness of nerve, a willingness to sacrifice ease and comfort, a devotion to labor and to research, a special knowledge that is certain, positive and comprehensive, a readiness to assume great responsibilities, added to marked manipulative skill and aptitude for operative methods, together with fertility of resource and quickness of response in emergencies, self-control and coolness in the face of the most appalling conditions, and a judgment that is unerring and almost intuitive. It is no wonder that great surgeons are few in number, and that when such a man does appear the common opinion of all ages and countries awards to him the highest professional honor and rewards.

That instinct which possesses a man and drives him into such a field as this may be de-

nominated, to distinguish it, the *Surgical Instinct!* It is an inborn quality in those who possess it in any high degree. It is not the result of education nor of opportunity, though it may be greatly developed and strengthened by both. Indeed, for its highest attainments it needs both the advantages of education and opportunity, but neither educational advantages nor any conjunction of opportunities will create it, if the original God-given instinct is not already in the soul of the man. On the other hand it is often the case that the man who is possessed by it will create for himself opportunity, and will secure education out of the common conditions of his environment. The history of surgery is full of instances of the truth of this statement. But none have displayed more fully the power and compelling influence of this "Surgical Instinct" than does the career of that great surgeon to honor whose memory we are met this evening.

This instinct was first awakened in him when as a young telegraph operator he was brought face to face with the trying scenes of a railroad accident. The work of surgical relief so appealed to him then that he determined that thenceforth that should be his vocation. To the achieving of this determination he bent every energy from that day on. Emphatically he carved out his own destiny. Forty years later, when the tragedy of his own passing overtook him, there was no surgical achievement which he had not mastered, and among the surgeons of his day his name had been recognized as in the first rank by the general voice of his peers as well as the plaudits of an ever increasing host of beneficiaries.

He was a young graduate of but a single year when I first met him in the Spring of 1872. All that the medical school could offer had been utilized by him to the full, but the advantages of a subsequent hospital internship had been denied him, simply because the necessity of self-support had made it necessary for him to enter at once into active practice. His education had begun; his opportunity was yet to come, but not until he had made it, or rather wrested it from an adverse environment.

There were two men among his teachers who especially influenced him. These were James R. Wood and Lewis A. Sayre. How the powers and brilliancy of these men would impress such a plastic and ardent nature as that of George R. Fowler could well be appreciated by the medical men of the last generation who

were privileged to see those men in the surgical amphitheater. Insensibly, perhaps, but none the less actually, they were his models. In the end he far outstripped them in his achievements, just as the surgery of the beginning of the twentieth century, of which he became a master, was beyond that of the middle of the nineteenth century, of which they were masters.

Side by side with these conditions, inherent in his own nature and in the character of the models which he chose, early came another influence that was powerful to shape his development and mold his career. This was the wife who at the outset of his professional life joined her life to his, to share in the early struggles, to guide in the later progress, to rejoice in the ultimate triumphs, and to mourn for his untimely decease. She sympathized with his work. She was counsellor, helper, comforter. Their union was an ideal one. One of the most attractive qualities of our colleague was his frank affection for his wife and their children. This was a part of that spirit of loyalty to home, to friends, to his profession, to the city of his birth and to his country, which was always conspicuous in him. What he had was always at their command, and he gave it always in a large hearted and generous way. As an example of this loyalty, let me refer to the dedication that accompanies the first edition of his book on appendicitis. It runs thus: "To the memory of Dr. Ernst Krackowizer, in grateful recognition of valuable aid rendered to me early in my professional career, as well as in admiration of his many noble qualities as a man and his skill as a surgeon, this book is inscribed." Now I happened to know something of the service which Krackowizer had rendered to young Fowler thirty years before; it was honorable alike to the giver and to the recipient, but that it should have been remembered for so many years and should have finally received this public acknowledgment in the first formal work published by Fowler, though long after the death of the benefactor, was highly characteristic of the man. The matter had to do with one of the first important operations undertaken by the young surgeon. The patient was a former client of Krackowizer, who was a German surgeon of the highest attainments, a compatriot of Jacobi and Schurz, who with them had taken refuge in this country after the political uprising of 1848. In the case in question Fowler had made the

diagnosis and declared the necessity of operation for relief. Krackowizer was appealed to as the final arbiter and authority. He sustained the opinion of the young surgeon; strengthened the confidence of the patient in the ability of the new man to do the needed work, and, finally, when the hour for it arrived, he came over from New York and gave to his young colleague the help of his presence and counsel in the operation. The success of the operation was immediate and permanent, greatly to the reputation of the young man, for the patient was both wealthy and influential in his community. The door of opportunity had begun to swing open and the generous hand that had moved it was never forgotten.

Time does not suffice for any detailed account of the first fifteen years of Fowler's professional life. They were years of steady growth in mental and professional stature. They were busy years, full of intense and varied activities in every department of medical work, but with progressive preponderance of that which was surgical. His ambition was to be recognized as a surgeon. The Central Dispensary, the Bushwick and East Brooklyn Dispensary, the Fourteenth Regiment of the National Guard, and finally the Anatomical and Surgical Society, each reaped the advantage of his enthusiasm and devotion during this period. He had a desire to do hospital work and teaching work, but neither hospital nor college seemed to be open to him. Not until the building of the new St. Mary's Hospital, in 1882, did he receive recognition. When the staff of that great hospital was organized, Fowler was selected as one of its surgeons.

The door of opportunity was now wide open. With what enthusiasm and abandon did he throw himself into his new work! For fourteen years he continued to serve in this hospital, until the multiplication of other demands made it necessary for even his energetic spirit to restrain its attempts.

We come now to the year 1887, when, with the opening of the doors of the Seney Methodist Episcopal Hospital, a new era in the history of the hospital work of Brooklyn was inaugurated.

Of the two surgeons to whom from the beginning the surgical work of the new hospital was entrusted, Fowler was one. No one was happier nor more enthusiastic than he when the work of that institution was inaugurated. For fifteen years he had been preparing for it. It was the period when the flower of antiseptic surgery had first burst into full bloom, and the possibilities



of the new art seemed boundless. In every direction achievements undreamed of before were being realized. The surgical world was intoxicated with enthusiasm. Dedicated to the highest possible realization of the medicine and surgery of the day, the new hospital offered a field attractive to one already possessed by the "surgical instinct" and an environment in which he could expect to do his best work. From the day of his appointment, June 30, 1887, to the day of his death, February, 1906, nearly twenty years, he rendered continuous service to this hospital. During this period other hospitals also opened their doors to him, and availed themselves of his talents and of his strength; the Brooklyn Hospital made him its chief surgeon in 1896, and of the German Hospital, when it was opened in 1900, he became at once its most active surgeon. The Polyclinic Post Graduate School of New York City made him one of its professors of surgery. The State availed itself of his knowledge by appointing him the examiner in surgery in its Medical Examining Board, and later by utilizing his services as the Surgeon General of its National Guard. The United States Government appointed him a Chief Surgeon of Volunteers, in which capacity he accompanied the Seventh Army Corps to Cuba in 1898. Throughout all these multiplied duties and honors he continued to give an undiminished allegiance to the Methodist Episcopal Hospital, and never permitted any diminution to occur in the amount of time, energy or interest devoted to the work of his service therein. He appreciated the advantages and the support which the hospital gave to him, and in return he gave to the hospital an incalculable amount of service and influence. This penetrated every department of the institution. It entered largely into the development of that professional *esprit de corps* which characterized in so marked a degree the earlier years of the work of the hospital, and drew to it such a remarkable corps of young men as its internes. It helped to make the Methodist Episcopal Hospital a veritable school of surgeons. The standards and ideals which he helped to set up there extended to other institutions of like character, and helped to produce that notable transformation and elevation of all the hospital work of this city which this period witnessed.

We do well to honor him by this service tonight. It does not seem possible that never again will his quick step and cheerful voice be heard in the corridors of the hospital; that never again will his resolute hand and clear brain act to save

life in its operating theater. It was but yesterday that he was among us in vigorous health, bearing the greatest of burdens with ease. Now he is but a memory! Alas, my brother! my brother!

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ST. CLAIR McKELWAY ON GEORGE RYERSON  
FOWLER, M.D., FIRST REFORMED CHURCH,  
SUNDAY EVENING, FEBRUARY 18, 1906.\*

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My Friends: I have been asked to say a few words about Dr. Fowler because I was responsible for his selection by the State Board of Regents to be a representative of his school of medicine on the Medical Examination Board of the State. Two practitioners and surgeons of eminence were named to us by the State Society. The law imposed on our Board the selection of one of them, that year. I secured the appointment of Dr. Fowler. I knew him to be the equal of the other man in qualifications and, plus that, he was well known to me—and a Brooklynite! The appointment, though renewable or terminable every three years was certain to be for life. His brethren could be trusted triennially to re-name him, as long as he lived. The Board of Regents was certain to confirm his nomination every time it was made. That was no reflection on any alternate who under the law had to be proposed with him. It was only a recognition of his qualifications and of his continuous retention of the confidence of his brethren. No alternate, necessarily named with him, under the law, expected or desired to supplant or to succeed him, after his first election. The fitness of the man and the chivalry of medicine forbade that.

The year his brethren first proposed his name, the friends of the alternate urgently importuned me to prefer the alternate. That was their right and their taste. I heard not a word from Dr. Fowler or from his friends; but when I asked some of his especial friends why they had not commended his selection to me, that I might have something to go by, they told me that he had requested them to refrain from doing so, on the ground that if his record did not commend him to the appointing power, they should not do so. That was so gratifying that I at once called him up by telephone and assured him that I intended to name him and felt certain that I could get my brethren to support me in my action. He was as grateful and pleased as any man can be—by telephone

\* Dr. McKelway delivered this address extemporaneously, but at the request of the Journal has courteously put it into manuscript form.

—and afterward in writing and by conversation showed how gratified he was.

His record, before his assignment to State service, justified his appointment to it. His record in State service vindicated his appointment to that service and his continuance in it. There was a double pathos in his death. He was stricken down on his way to duty for the State in Albany. The illness of which he died was precipitated by the complaint which necessitated the operation, which, surgically speaking, was successfully performed by tender, skilful and loving brethren. The complications arising from organic conditions caused his death. The operation did not. Without the operation he would have died of appendicitis. He did not die of that, but because of long latent conditions which peremptorily asserted themselves after the operation. The operation was necessary—and successful. The sequential liabilities were known to be serious, but they had to be dared. He was aware of that and he insisted on taking the risk. In this was as real a quality of courage and heroism as any man or scientist, or any soldier or surgeon, could possibly show. The discrimination to be made between the first operation, which was successful, and the second operation, for quite other causes, which could not be successful, will be made by his professional brethren, but should be made and understood by the laity also.

His professional brethren, his military colleagues, his non-medical brethren in hospital service have spoken their words of tribute. As a servant of the State, I, to whom his initiative in State service is due, have limited my words to him in his character and career as a fellow servant of the State. And I am certain that every other educational servant of the State will concur with my testimony to his fidelity and to his capacity as a servant of the State, and with all who knew him in assurances of sympathy to his kindred in the great loss they have experienced, which is only greater than our own.

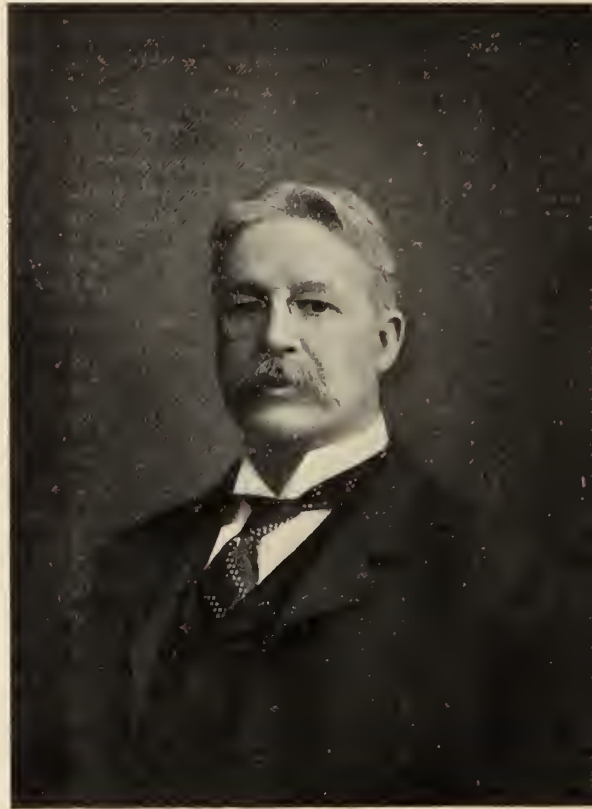
#### GEORGE RYERSON FOWLER, M.D

BY WILLIAM SCHROEDER.

Chairman of the Historical Committee of the Medical Society  
County of Kings, and the Brooklyn Medical Society. Member  
of the Historical Committee of the Associated Physicians  
of Long Island.

In the death of Dr. Fowler the profession of medicine in this city has lost one of its bright-

est ornaments. He was particularly adapted by nature and education for the work which he pursued during the greater part of his professional life. He was born in the City of New York on December 25, 1848, and died in the city of Albany, New York, on February 6, 1906. His grandfather, Duncan B. Fowler, his father, Thomas W. Fowler, and his mother, Sarah Jane Carman, were all natives of Long Island.



*George Ryerson Fowler*

Dr. Fowler was married in 1873 to Miss Louise Rachel Wells, of Norristown, Pa. The results of this union were four children, three of whom are still living—Russell Story Fowler, M.D., Florence Grace Fowler, and Royal Hamilton Fowler.

The doctor's early education was received in the schools of Jamaica, Long Island, and his medical education was under the direction of John W. Hamilton, M.D., graduating M.D. from Bellevue Hospital Medical College in 1871. He engaged in private practice in the city of Brooklyn, where he remained until his death.



## MEDICAL POSITIONS.

- 1872-74—Surgeon, Central Dispensary.  
 1878-87—Surgeon, Bushwick and East Brooklyn Dispensary.  
 1883-95—Surgeon, St. Mary's General Hospital.  
 1887-1906—Surgeon, Seney Methodist Episcopal Hospital.  
 1896-1906—Surgeon-in-Chief, Brooklyn Hospital.  
 1899-1906—Surgeon, German Hospital.  
 1882-83—Consulting Surgeon, Kings County Hospital.  
 1894-1906—Consulting Surgeon, Norwegian Hospital.  
 1894-1906—Consulting Surgeon, St. John's Hospital.  
 1895-1906—Consulting Surgeon, Eastern District Relief Hospital.  
 1887-1906—Consulting Surgeon, Bushwick Hospital.  
 1899-1906—Consulting Surgeon, Nassau Hospital, Hempstead, L. I.  
 1903-1906—Consulting Surgeon, St. Mary the Immaculate Hospital, Jamaica, L. I.  
 1877-June 2, 1886—Asst. Surgeon, rank of Captain, 14th Regt. N. G., N. Y.  
 June 2, 1886-Oct. 2, 1886—Surgeon, rank of Major, 14th Regt. N. G., N. Y.  
 Oct. 2, 1886-1898—Brigade Surgeon, rank of Major, Second Brigade N. G., N. Y., on the Staff of Gen. James McLeer; raised to Lieutenant-Colonel April 2, 1898.  
 July 2, 1898-Jan. 31, 1899—Chief Surgeon, rank of Major, U. S. Volunteer Army, on the Staff of Gen. Fitzhugh Lee. Consulting Surgeon and Chief of the Operating Staff in the field, and Medical Inspector of the Seventh Army Corps.  
 Jan. 1, 1902-Feb. 6, 1906—Surgeon N. G., N. Y., rank of Colonel, on the Staff of Major-General Francis E. Roe. Brevetted Brigadier-General Feb. 16, 1903, by Governor Odell.  
 1890-1906—Examiner in Surgery, Board of Regents of the University of the State of New York.  
 1896-1902—Professor of Surgery, New York Polyclinic. Professor Emeritus, 1902-06.  
 Delegate to the International Medical Congress, Moscow, Russia, 1897.  
 Delegate to the International Medical Congress, Paris, France, 1900.

## MEDICAL SOCIETIES.

- 1872-1906—The Medical Society, County of Kings; President, 1886.

- 1878-84—Brooklyn Anatomical and Surgical Society; President, 1890.  
 1882-1906—Brooklyn Pathological Society.  
 1880-1906—New York Physicians' Mutual Aid Association.  
 1886-1906—New York Academy of Medicine; Vice-President, 1906.  
 1888-1906—New York Society of Medical Jurisprudence.  
 1889-1906—New York Medical Society, Per. Mem.  
 1892-1906—New York Surgical Society.  
 1890-1906—American Medical Association.  
 1891-1906—American Surgical Society; Treasurer, 1898-1906.  
 1887-1906—Brooklyn Surgical Society; President 1890-91.  
 1892-1906—Brooklyn Medical Book Club.  
 Brooklyn Alumni Association of Bellevue Hospital Medical College; President, 1896.  
 1890-1906—Red Cross Society of Brooklyn; President, 1890.  
 1889-1906—Associated Physicians of Long Island.  
 1892-1906—National Association of Railway Surgeons. Honorary Member Association of Military Surgeons of the United States.  
 1902-1906—Medical Association of the Greater City of New York.  
 Verein Deutscher Aerzte von Brooklyn.  
 Deutsche Hospital Gesellschaft von Brooklyn.  
 Member de la Société Internationale de Chirurgie.

## NON-MEDICAL SOCIETIES.

Member of the Advisory Board, Brooklyn Diet Dispensary. Tuscan Lodge, No. 704. F. A. M. Scottish Rite Bodies, Brooklyn, N. Y. Kismet Temple, A. A. O. N. M. S. New York State Rifle Association. Montauk and Nassau Country Clubs. Member of the Church of the Messiah.

Established the first class for First Aid to the Injured in 1885, State Camp at Peekskill, N. Y. This system was extended to all National Guard organizations in the State, and by an order from the Adjutant-General's office in Washington, to all regular Army posts in the United States.

Dinner tendered to George R. Fowler, M.D., by Gen. James McLeer and Staff at the Montauk Club on March 9, 1899.

## MEDICAL BOOKS AND PAPERS.

"Syllabus of Lectures on First Aid to the

Injured"—Second Brigade, N. G., N. Y., 16 mo., 1887, pp. 57.

"Syllabus on Surgery"—Board of Regents of the State University, 16 mo., 1892.

"A Treatise on Appendicitis," 8 vo., 1894, pp. 190. Second Edition, 8 vo., 1903, pp. 235. Translated into German by Professor Lauderer, of Stuttgart, 1897.

"A Treatise on Surgery," 2 vols., 8 vo., 1906, pp. 725 each.

1880—Excision of the Knee-joint. Fractures of the Elbow-joint. Surgical Treatment of Facial Neuralgia.

1881—Excision of the Rectum for Carcinoma. A Case of Extirpation of the Penis. Excision of Popliteal Neuromata.

1882—Abscess of the Liver. Gastrotomy for Cancerous Stricture of the Esophagus.

1883—Removal of an Angioma of the Scalp. Naphthalin in the Treatment of Wounds.

1885—Congenital Sacral Cysts. Compound Fracture of the Patella.

1886—A Review of the New Antiseptic, Hydronaphthol, in Surgery. Hydronaphthol: A New Antiseptic. The Operative Treatment of Facial Neuralgia. Surgical Infection: Is it a Chimera? Exploratory Laparotomy. Non-union of Fractures: Some Modern Methods.

1887—Wire Suturing of Fracture of the Patella. Antiseptic Surgery from Medico-Legal Standpoint.

1888—The Arraignment of Cat-gut. Is Resection of the Knee-joint Justifiable in Children? Laparotomy for Extra Uterine Pregnancy. Surgical Fever. Congenital Talipes Varus. Gun-shot Wound of the Brain. Primary Carcinoma of the Tonsil. Operative Treatment of Intestinal Obstruction.

1889—A Case of Modified Laryngectomy for Epithelioma of the Larynx. Hernia of the Pleura into the Neck. Radical Cure of Hernia.

1890—Ether, Chloroform or Nitrous Oxide. Operative Treatment of Carcinoma of the Breast. A Case of Ovarian Cystoma. A Case of Ulcerative Appendicitis.

1891—Discussion on Appendicitis: The Operative Technique. Aseptic Operative Technique. A Case of Excision of Lupus of the Face. Dangers of Immediate Suturing of the Patella. A Study of Twenty-eight Cases of Appendicitis.

1892—Aseptic Cat-gut. A Broken Tracheotomy Tube Lodged near the Trachea. The Crossed Suture. Median Operation of Lithotomy. Lumbar Colotomy. Alexander's

Operation for Shortening the Round Ligaments. Transplantation of Skin.

1893—Origin of Carcinoma—Medium of a Specific Micro-organism. Traumatic Fever and Surgical Antipyresis. Discussion upon Appendicitis—Surgical Society of Paris—Europe. Gun-shot Wounds of the Long Bones. Extirpation of the Superior Maxillary Nerve and Meckel's Ganglion for Facial Neuralgia. Observations on the Radical Cure of Hernia. A Case of Thoracoplasty for the Removal of a Fibrous Growth.

1894—Observation upon Surgical Tuberculosis. Thrombosis of a Varix of the Saphenous Vein. Observation upon Appendicitis.

1895—The Location and Removal of Missiles from the Cranial Cavity. Report of a Case in which Nine Operations were Performed at One Sitting. A New Operative Method in the Treatment of Fractures of the Patella. Application of Photography to Unseen Substances in Surgical Diagnosis.

1896—Suppurative Pancreatitis. Hysterorrhaphy. The Surgery of Intrathoracic Tuberculosis. Gun-shot Wound of the Head—Located by the Roentgen Rays. Dislocation of the Elbow-joint—Skiagraphy Failed to Reveal. Address—The Evolution of the Surgery of the Twentieth Century. Ligation of the Common Carotid Artery and the External Carotid Artery above the Occipital and Facial Arteries. Fracture of the Patella. Exploratory Suprapubic Cystotomy in Obscure Bladder Disease. A New Method for the Radical Cure of Inguinal Hernia. Goitre. Median Operation of Lithotomy.

1897—Intraperitoneal Transplacement of the Spermatic and Typical Obliteration of the Internal Ring and Inguinal Canal. Acute General Peritonitis. Typical Excision versus Inversion of the Vermiform Appendix. Elephantiasis Cured by Ligation of the Iliac Artery. Non-Operative Treatment of Appendicitis. Differential Diagnosis—Lesions of the Vermiform Appendix. Prolapses Procidencia and Invagination of the Rectum. Septic Peritonitis, considered from the Clinical Standpoint. The Radical Cure of Femoral Hernia. Perirenal Lipoma. Carcinoma of the Breast: A Clinical Lecture. The Differential Diagnosis of Surgical Lesions in the Right Half of the Abdomen and Pelvis. Excision of the Rectum for Carcinoma. The Listerian Treatment of Wounds. Hemarthrosis of the Knee. Neurectomy for the Relief of Facial Neuralgia. The Importance of



the Early Removal of Caseous Lymphatic Glands. Dry Wound Dressing. Compound Comminuted Fracture of the Patella. Alexander's Operation for Shortening the Round Ligaments. Drainage of the Bladder. Hallux Valgus.

1898—Observations upon the Injuries of the Cranium and of the Spine. The Use of Animal Toxins in the Treatment of Inoperable Malignant Tumors. Tumors Inoperable. Clinical Studies in Appendicitis. Implantation of the Ureters into the Rectum in Exstrophy of the Bladder. Plastic Surgery.

1899—Observations upon the Organization and Work of the Medical Department of the Seventh Army Corps in the Spanish-American War. The Technique of Appendicitis Operations. Tracheotomy with the Galvano-Cautery. Address at the Dinner to George R. Fowler, M.D., Montauk Club. Address at the Commencement Exercises of St. John's Hospital Training School for Nurses. An Improved Technique in Amputation of Large Rectal Prolapse.

1900—Report on the Medical Department of the Greek and Turkish Armies. Trunk Posture and Elevated-Head Method of Treatment to Facilitate Drainage into the Pelvis. Historical and Critical Observations upon the Surgery of the Liver and Biliary Passages. Address at the Opening of the Surgical Operating Rooms, Seney M. E. Hospital. A New Method of Entering the Abdominal Cavity—Ileo-cecal Region. Some General Observations upon the Operative Treatment of Malignant Disease. Interscapulo-Thoracic Amputation for Osteomyelitis of the Humerus. Cocain Analgesia from Subarachnoid Spinal Injection. Resection of the Cecum—For Carcinoma.

1901—The Relation of the Student of Medicine and the Recent Graduate to the Field of Surgery. Review of the Surgical Aspects of the Case of President McKinley. The Simultaneous Employment of Analgesia Obtained by Spinal Cocainization and Ether or Chloroform Narcosis. A Study of Eighty-one Cases Operated Upon Under Analgesia Obtained by Subarachnoid Spinal Cocainization. Obituary of Landon Carter Gray, A.M., M.D. Internal Derangement of the Knee-joint: Report of Two Cases of Removal of the Internal Meniscus or Semilunar Cartilage. Decortication of the Lung for Chronic Empyema. The Indications for the Limitation of Spinal Cocainization in Surgery.

1902—Tumors of the Liver. Shortening of the Radius in Colles' Fracture. Cases of Fracture of the Astralgus with Skiagraphs. Address to the Graduating Nurses, German Hospital, Brooklyn. The "Circulus Vitiosus" Following Gastro-Enterostomy, with a Description of a New Operation Designed to Prevent its Occurrence.

1903—Excision of Both External Carotids for Malignant Disease of the Cheek and Jaw. The Skin as a Source of Wound Infection. Hematemesis Following Appendectomy: Report of a Case. Talipes Equinus. Note of a Case of Gun-shot Wound of the Neck—Ligation of the Common Carotid and External Carotid on the Opposite Side. The Toilet of the Peritoneum in Appendicitis. Bullet Dislodged from the Lateral Pharyngeal Wall, and Expecterated Three Months After Receipt of Self-inflicted Wound in Right Eye. The Toxicity of Appendicitis, with a Report of Two Cases of "Appendicular vomito negro." Provisional Hemostasis in Operations upon the Head and Neck. Hematemesis Following Appendectomy: Report of a Case.

1904—The Alleged Use of Dumdum Bullets in the Japanese-Russian War.

1905—The Making of a Surgeon. Some Observations on the Technique of Perineal Prostatectomy. A Case of Suture of the Spinal Cord following a Gun-shot Injury Involving Complete Severance of the Structure.

1906—A Plea for the Early Operative Diagnosis of Carcinoma of the Stomach.

1887—Article in Wood's Reference Handbook of the Medical Sciences: "Injuries and Diseases of the Patella."

1893—Appleton's System of Genito-Urinary Surgery—Article on "Injuries and Diseases of the Bladder."

1901—The International Text-book of Surgery—Articles on: "Wounds and Contusions," "Burns and Scalds," "Effects of Lightning-Shock," "Fat Embolism," "Repair of Special Tissues."

Associate Editor "Annals of the Brooklyn Anatomical and Surgical Society"—1879-84.

Editor Department of "Progress in Surgery," BROOKLYN MEDICAL JOURNAL, 1888—1906.

#### NON-MEDICAL PAPERS.

Jan. 1, 1899—Ceremonies Attending the Raising of our Flag at Columbia, Buena Vista, Cuba, January 1, 1899.

Jan. 8, 1899—Cuban Starvation.

Feb. 1, 1899—Sanitary Annexation in Cuba.

## SURGICAL INSTRUMENTS.

Fowler's Iodoform Dredger, Single and Triplex. Fowler's Modification of Allis Inhaler. Fowler's Otis Bougies. Fowler's Sounds.

## RESOLUTIONS ON THE DEATH OF DR. GEORGE R. FOWLER.

A special meeting of the Council of the Medical Society of the County of Kings was held February 7, 1906, to take action on the death of Dr. George Ryerson Fowler, late President of the Board of Trustees.

President, Dr. William F. Campbell, in the Chair.

Dr. Fairbairn moved that personal letters be sent, expressing the feelings of gratitude of the Council and as such representing the Medical Society of the County of Kings, to the following gentlemen who were associated in the illness of Dr. Fowler: Drs. VanDerVeer, Neimann and McDonnell, of Albany, the President of the Board of Trustees of the Albany Hospital, and House Surgeon Dr. Flynn.

It was resolved that resolutions be drawn up, engrossed and sent to the family of Dr. Fowler from the Council, representing the Medical Society of the County of Kings. A committee consisting of Drs. Fairbairn, Fleming and Butler, was appointed to draw up the resolutions and compose the letters, and the following resolutions were read:

*Whereas*, The Council of the Medical Society of the County of Kings has received the sad news of the sudden death of GEORGE RYERSON FOWLER, M.D., while he was engaged in an important mission for the medical profession of this city and State;

*Resolved*, The Council feel deeply that a great loss has been sustained by themselves personally, and by the Medical Society of the County of Kings—the whole profession, in fact—which he has served faithfully and in a distinguished manner in many capacities for a long term of years. By his earnest and active life, by his untiring devotion, by his preëminent services to his country, to the State and the medical profession he has rendered an accounting which may well be emulated.

*Resolved*, That the Council of the Medical Society of the County of Kings tender to his

bereaved wife and family the expression of their earnest and affectionate sympathy.

HENRY A. FAIRBAIRN,	} Committee.
JAS. W. FLEMING,	
GLENTWORTH R. BUTLER,	

It was authorized to have the resolutions engrossed and presented in a suitable memorial, and that the Council attend the funeral in a body as representing the Society.

JOHN A. LEE, *Secretary*.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

The Board of Managers of the Methodist Episcopal Hospital, at its regular meeting, held January 25, appointed as obstetrician-in-chief Dr. Robert L. Dickinson, and as attending obstetricians Drs. John O. Polak and Ralph H. Pomeroy. Drs. Sewall Matheson and O. Paul Humpstone were appointed assistant obstetricians.

The new Health Department Laboratory and the remodeled Willard Parker Hospital, at the foot of East Sixteenth Street, Manhattan, were opened Friday, February 9. Invitations were sent to the medical profession in all the boroughs.

Dr. Walter C. Wood has been appointed senior surgeon at the Brooklyn Hospital in place of the late Dr. George R. Fowler. Dr. Richard W. Westbrook has been appointed to fill the vacancy caused by Dr. Wood's promotion.

The annual dinner of the ex-internes of the Long Island College Hospital will be held early in March at the Clarendon Hotel. An attractive program has been provided. Dr. William S. Pool is president, and Dr. Charles S. Cochrane secretary.

Dr. George L. Buist and Miss Adelaide Richardson were married at St. George's Church, Tuesday, February 27, 1906. They will reside at Dr. Buist's former address, corner Hancock Street and Franklin Avenue.

The Kings County Hospital Alumni Associa-



tion Dinner was held at the Assembly, on February 7, 1906. The meeting was presided over by Dr. William C. Woolsey, the retiring officer. Dr. Franklin Welkert, of Manhattan, was elected as president for the ensuing year. The speakers included Professor McCorkle and Corporation-Counsel Bell.

A Memorial Service to the late Dr. George R. Fowler, by the Board of Managers of the Methodist Episcopal Hospital, was held on the evening of February 18, at the Seventh Avenue First Reformed Church. Bishop Edward G. Andrews presided, and the speakers who presented addresses were the Rev. J. M. Buckley, Dr. Lewis S. Pilcher, Dr. William F. Campbell, Dr. St. Clair McKelway and the Rev. A. G. Cavanagh. Dr. Pilcher's address appears on another page of this issue.

The following poem, a memorial to the late Dr. Fowler, from the pen of Miss Elizabeth MacEvitt, sister of Dr. John C. MacEvitt, appeared in the pages of the *Standard Union*, on February 12, 1906.

TO DR. G. R. FOWLER'S MEMORY.

I hear no tolling church bells ring out in sad  
dismay,  
Nor are the flags at half mast on the City Hall  
to-day,  
And yet a hero's going on his last long journey  
home,  
Through the Valley of Great Mystery he is go-  
ing to the throne.  
While the bells are strangely silent, there's a  
knell in every heart,  
That's throbbing in its sorrow tolling out that  
we must part.  
'There's a sob in every muffled voice and a tear  
in every eye—  
There's a lump in every throat and a heartbreak  
in each sigh—  
For the man that saved his fellow man not for  
honor or display,  
But for love, unselfish love or right, is going  
home to-day.  
  
Where the sick and bruised are lying in agony  
and pain  
In the hospitals of charity; lift up your eyes  
again  
You will see that sorrow's emblem is fluttering  
in the air,  
The Stars and Stripes at half mast, in every  
soul despair;

It was here he was the hero, it was here he  
was the king,

It was here his skill and science would allay the  
pain and sting,

It was here his brain was power, and his labors  
never done

To the poor, and tired, and lowly, to the rich  
and every one;

If prayers are like sweet flowers, there's a path-  
way to the throne,

And gratitude like songbirds, sweet will be his  
journey home. —E. M. E.

Dr. Walter B. Chase prepared a three column article for the editorial page of the *Standard Union* on the life and work of the late Dr. George R. Fowler, which was published on February 9 issue of that journal.

The January conference of Hospital anesthetists was held on January 29 at the Bushwick Hospital. Representatives were present from the Bushwick, Cumberland Street, Long Island College, Jamaica, Nassau, Norwegian, St. Catherine's, St. John's, and the Seney Hospital. The earlier portion of the evening was spent in a free discussion of some of the difficulties of the interne anesthetist's position. The main business of the meeting was to perfect an organization. This was done by inviting the several visiting anesthetists to form the Executive Council with Dr. William C. Woolsey, chairman, and Dr. Adolf Erdmann, secretary. The qualifications for membership and the dates of future meetings are to be fixed by committees appointed for that purpose. The next meeting will be held at the Seney Hospital in March. The Secretary (567 South) will be glad to give any information concerning the conference to anyone interested in the subject of anesthesia.

Senator Cooper introduced a bill in the State Senate at Albany on February 19th creating a State commission to regulate the practice of nursing, to consist of a commissioner and deputy to be appointed by the Governor for six years at salaries of \$7,500 and \$4,500 respectively, with \$1,000 each for expenses; and a secretary at \$4,000 and \$1,000 for expenses, and a board of physicians. Applicants' fees would cover the cost.

Dr. David F. Lucas has completed a twenty-five years' continuous service at the Central Dispensary on Third Avenue. At the dinner celebrating the fiftieth anniversary of the

founding of the Dispensary, held at the Montauk Club. Dr. Lucas was the guest of honor. Nearly all of the officers, trustees and members of the medical and consulting staffs were present. Dr. George R. Fowler, who was critically ill in Albany, was unable to be present, and Drs. Emery, Jewett and Pratt were also absent. Dr. Prout, who was an interne in the Dispensary forty years ago, and Drs. Maddren, McNaughton, Pilcher and Barber also spoke upon the work of the Dispensary. Those present were:

Julian D. Fairchild, Dick S. Ramsey, William H. English, George V. Brower, Thomas Blake, George L. Morse, Theophilus Olen, John H. Ireland, James Shevlin, William G. Gilmore, William N. Kenyon, Edward C. Blum, Charles A. O'Donohue, Cornelius E. Donnellon, W. P. Callaghan, Drs. D. F. Lucas, L. P. A. Magilligan, John A. Cochran, J. P. Pendleton, Henry A. Mills, J. J. Wagner, S. F. Anderson, J. D. Doyle, F. B. Cross, S. K. Frost, Fred. Schroeder, George McNaughton, William Maddren, V. A. Robertson, J. R. Prout, C. F. Barber, L. S. Pilcher, William Browning and J. M. Winfield.

A musicale by the Alumni Association of the Methodist Episcopal Hospital Training School for Nurses, for their endowment fund, was held at the residence of Dr. Jones, 508 Third Avenue, February 21, 1906.

A promenade concert and ball in aid of the Brooklyn Eastern District Dispensary and Hospital was held at the Pouch Gallery, February 14, 1906.

A musicale and dance in aid of the Williamsburg Hospital was held at the Pouch Mansion on February 5th, 1906.

The subject of pure food laws has been before the United States Senate under more or less serious consideration for fifteen years. On February 21 a pure food bill was passed by a vote of 63 to 4. The vote was taken after a day devoted almost exclusively to debate of a desultory character on the measure. Several efforts were made to amend the bill, and the committee accepted suggestions, but only those thus accepted were incorporated in the bill as passed. Messrs. Bacon, Bailey, Foster and Tillman, all Democrats, voted in the negative.

The bill makes it a misdemeanor to manufacture or sell adulterated or misbranded foods, drugs, medicines or liquors in the District of Columbia, the Territories and the insular posses-

sions of the United States, and prohibits the shipment of such goods from one State to another or to a foreign country. It also prohibits the receipt of such goods. Punishment by fine of \$500 or by imprisonment for one year, or both, is prescribed. In the case of corporations, officials in charge are made responsible. The Treasury Department and the Departments of Agriculture and of Commerce and Labor are required to agree upon regulations for the collection and examination of the articles covered by the bill, but no specific provision is made for investigation except by the Department of Agriculture. The investigations by that department are placed in the hands of the chief of the Bureau of Chemistry, and if he finds that the law has been violated the Secretary of Agriculture is required to report the facts to the United States District Attorney, who in turn is required to institute proceedings in the Federal courts.

## BOOK REVIEWS.

**TEXT-BOOK UPON THE PATHOGENIC BACTERIA.** For Students of Medicine and Physicians. By Joseph McFarland, M.D. *Fourth Edition, Rewritten and Enlarged.* Phil., N. Y. and Lond., W. B. Saunders & Co., 1903. 629 pp., 2 pl., 1 chart. 8vo. Price: Cloth, \$3.50.

The above named Fourth Edition would make a good text-book for an advanced student in bacteriology; but it is a question whether it would not be a rather heavy text for the student taking his preliminary course in this subject, from the fact that it has much of the recent experimental work incorporated in it and a rather free use of references, which, to the average student, would make the work seem rather ponderous.

The third and fourth chapters on infection and immunity come before the chapter on methods of observing bacteria and several other chapters on the studying, handling and recognizing of bacteria. The above mentioned chapters though not well placed, perhaps are not lacking in quality and clearness. The subject matter therein is well presented. The work of the publishers is very commendable.

**INFECTIOUS DISEASES: Their Etiology, Diagnosis, and Treatment.** By G. H. Roger, M.D. Translated by M. S. Gabriel, M.D. N. Y. and Phil., Lea Bros. & Co., 1903. vi. 17-874 pp. 8vo. Price: Cloth, \$5.75.

The work takes up the subject of infection and the infectious diseases in a comprehensive manner, giving us not only much of pure bacteriology, but deals also with this subject as to its relations to symptoms and finally to therapeutics. This is about the first work to consider the bacterial subject from start to finish. The book includes much of the author's own research work, but he has incorporated it in such a good clear manner that it does not detract from the work in its clear, logical, likeable style.

A most excellent book for the expert bacteriologist to read to help him to appreciate the subject all the way to a conclusion or the therapeutics of the diseases; and on the other hand, for the practitioner, it is worth reading to give him an interesting and clear account of the more strictly bacteriologic aspect of the subject of infection.



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## ORIGINAL ARTICLES.

### SIMPLE FRACTURES ABOUT THE ELBOW JOINT.\*

BY JOHN F. MEAGHER, M.D.

Before taking up the special fractures about the elbow-joint, it may not be amiss to note a few of the anatomical points, and say a few words about the mechanics of the joint. The articular surface of the humerus is longer than the condyles, and has an oblique direction, the inner extremity being lower than the outer. While the internal condyle is more prominent than the external, the opposite is true of the condyloid ridges. The external condyle is best felt during semi-flexion. In full extension it is important to remember that the following three prominences are in a line—the internal and external condyles, and the upper end of the olecranon. With the arm flexed at a right angle, the border of the olecranon lies beneath the condyles; in extreme flexion it is in front of them. Deep pressure in the cubital fossa may possibly reveal the lip of the coronoid process. During flexion the upper triangular surface of the olecranon can be felt—directed backwards: the triceps hides it during extension. Below and a little in front of the posterior surface of the external condyle you can feel the head of the radius. The capsular ligament is especially strong on the sides, the external lateral ligament blending with the orbicular ligament, which limits motion in the head of the radius.

The elbow can be flexed and extended to an extent of 150 degrees; abduction and adduction are not normally present, but it is necessary to know that in full extension the forearm is abducted in women more than in men. This physiological abduction in women may amount to 25 degrees. Pronation and supination of the forearm are possible to an extent of 180 degrees. It is well to remember that the bones of the forearm are parallel only in supination, being crossed in pronation. With the forearm extended and supinated, the axis of the forearm is directed outward; on the other hand, during flexion the hand and forearm approach the middle line of the

body, thus enabling the hand to be easily carried to the face. One must not forget that the varying tension and amount of structures about the joint limit flexion and extension. The angle of the axes of the arm and forearm is about 165 degrees during supination of the hand; pronate the hand, and this angle almost entirely disappears.

In discussing fractures about the elbow-joint we may mention the following:

In the humerus: (1) Supracondyloid fracture, simple; (2) supracondyloid fracture, complex, as the T and Y shaped fractures; (3) fracture of the external condyle; (4) fracture of the external epicondyle; (5) fracture of the internal epicondyle; (6) fracture of the internal condyle; (7) diococondyloid fracture; (8) fracture of the capitulum of the humerus. In the ulna; (9) fracture of the coronoid process; (10) fracture of the olecranon. In the radius; (11) fracture of the head of the radius; (12) fracture of the neck of the radius.

1. *Supracondyloid Fracture.*—This is one of the most frequent fractures we have to deal with, about the elbow-joint. This is usually an extensive fracture, less commonly a flexion fracture. The line usually runs from in front up and back, so the triceps pulls the lower fragment up and back, and you have the general appearance of a backward dislocation of the forearm. In the less common flexion fractures, the lower fragment is displaced forwards. False mobility is readily detected, which will rule out dislocation. The arm is generally held flexed, and though the olecranon is higher than usual, it still retains its relation to the two epicondyles, which have also been displaced. Crepitus is obtained after reduction. The humerus is much shortened. The other general symptoms of fracture are present.

In treating these cases following reduction, splinting in the semi-flexed position is practiced. The extension splint, however, is being more and more applied to "elbow" fractures. Remove the splint not later than the third week, and only bandage the arm at night. Then practice daily massage, active and passive motion and baths. There is no doubt that in many of these cases that fixation in the semi-flexed position is best, in

\*Read before the Association of Alumni of St. Mary's Hospital, Jan. 15, 1906.

order to avoid ankylosis in the extended position. Such an arm would of course be useless. Some surgeons, Smith for instance, advocate sharp flexion to prevent the backward displacement of the short lower fragment. Kocher recommends the extension treatment as being excellent in children. The recumbent position is the only drawback in treating the cases so.

2. *Supracondyloid Fracture, Known as the T or Y-shaped Varieties.*—These fractures are more common in adults, and are usually the result of greater violence. The local symptoms are more exaggerated than in the previous cases, because the joint is involved. Crepitus and abnormal mobility, especially adduction and abduction, are present. The ability to move the condyles on each other and the increase in the width of the cubital region are the distinctive features of this condition. Pressing the condyles together causes pain, whereas it does not in the simple variety. In the Y-shaped fractures, the fissures may reach high up on the humerus.

In these cases, to obtain a good result, it is essential for a time at least, to treat these cases by extension. The X-ray is of value here, aside from its diagnostic use. A circular splint may be of great service for ten days or so. Operative interference is much more common in this than in the simple form. Resection of both condyles leaves a powerless joint. The result is better when only the external condyle is removed, the trochlea and radio-ulnar articulations allowing good mobility.

3. *Fracture of the External Condyle.*—This lesion is quite a frequent one, being the second most common about the elbow-joint. There may be but little deformity and disturbance of motion, except with extreme flexion and extension. Crepitus, pain on direct pressure and abnormal adduction (due to the fact that the ext. lateral ligament and radius are not held in position) are present. This fracture only involves the joint. The articulation between the ulna and the trochlea being uninterrupted, passive and even active flexion is possible. Rotation is only slightly interfered with, as this motion takes place in the radio-ulna articulation. The axes of the arm and forearm may form a straight line, or the angle may even open mesially; the normal angle opens outwardly. The broken off condyle may show some deformity and can usually be moved.

Extension with the arm outstretched is better than semi-flexion. Reduction may be difficult and may require operation. It is better to remove the fragment if it presents any difficulty.

4. *Fracture of the External Epicondyle.*—This condition is quite rare, and is usually due to direct violence. It may accompany backward dislocation of the forearm. In children under 15 years, fractures of the epicondyles are really epiphyseal separations. Fixation for ten to fourteen days is usually sufficient in these cases.

5. *Fracture of Internal Epicondyle.*—Sudden motions pulling on the strong internal lateral ligament may tear the epicondyle. This condition is frequently associated with posterior and lateral dislocation of the forearm. Crepitation, abnormal mobility, local swelling, impaired supination, with good pronation, downward displacement of the fragment, due to traction of the ligament, slight hindrance of extension, are the distinguishing features. As the internal lateral ligament is not relaxed, treatment by extension is not as successful as in the previous cases. Suturing of the fractured bone—or even excision—with suturing of the ligament may be necessary.

The following four varieties of fracture of the humerus are rather uncommon and often cannot be defined clinically.

6. *Fracture of the Internal Condyle.*—The diagnosis is made by the local signs of fracture, along with passive mobility of the forearm, in the sense of abduction and hyperextension. If there is much displacement, palpation will reveal abnormal motion of the fragment. This fracture is produced only by a fall on the flexed elbow.

A plaster splint for two or three weeks or continuous extension is advisable in these cases. Reduction is best accomplished by traction upon the upper end of the flexed forearm in the axis of the upper arm. Then in two weeks motion should be begun.

7. *Diacondyloid Fracture.*—By this we mean fracture or avulsion of the articular process alone; the fracture lying below the condyles. It is usually a separation of the epiphysis, and occurs up to the fifteenth year. If purely intra-articular, it is very difficult to diagnosticate. The local symptoms indicate a severe intra-articular lesion. With the epicondyles fixed, false motion is possible in all directions. This is the only fracture which may be completely intracapsular. Extension with the arm outstretched for ten days is the best treatment. After the tenth day perform gradual flexion. The tension of the capsule holds the fragment in place.

8. *Fracture of the Capitulum of the Humerus.*—Kocher states that this form of fracture is seldom described. Kean, however, reports a case.



The lesion consists of a pulling off of the capitulum, and is usually seen between the ages of 10 and 20. Full extension is impossible and supination is painful, and impaired. A prominence may be felt near the head of the radius. During extension the fragment may slip into place, with resulting good motion; this is characteristic of this condition. Fracture of the head of the radius may be excluded, by palpating that bone during pronation and supination. Removal of the fragment by operation is the best procedure.

9. *Fracture of the Coronoid Process of the Ulna.*—This condition is rare, and is usually associated with backward dislocation of both bones of the forearm. And again, where such a dislocation is easily reducible, it points to this fracture, which usually occurs at the tip. It is questionable whether this fracture ever occurs except as a complication of the fore-mentioned dislocation. The displacement is slight. Besides the customary local signs, it may be mentioned that though active and passive motion are unimpaired, forced flexion causes pain. The fragment may be palpated in the cubital region. The treatment is to fix the arm for seven to nine days, with the arm semi-flexed.

10. *Fracture of the Olecranon Process.*—This is by far the most common fracture of the bones of the forearm, in connection with the elbow-joint. The displacement due to the traction of the triceps, causes a gap, which is readily recognized. Some surgeons recommend suture in all these cases. Fractures of the olecranon due to direct violence are usually intra-articular; those due to muscular traction are not. With this condition forward dislocation of the arm is not uncommon. Most of these patients allow the arm to hang by the side, supporting it with the other hand. Flexion is painful, whereas extension is impossible. The other characteristic signs of swelling, ecchymosis, etc., are present. Interposition of part of the capsule or tendons may interfere with union. One may often have good function with fibrous union. In order to lessen the separation of the fragments, Lauenstein recommends puncturing the joint to remove the extravasation. This is not advisable in most cases, however. Figure-of-8 bands of adhesive plaster are useful. Fixation with a plaster splint, with the arm extended, for ten days, then flex the arm gradually to avoid stiffness, is the best treatment. In the fourth week massage and passive motion should be practiced. Forced flexion, however, is to be avoided at the outset. Massage without fixation has been advised by Sachs.

Fibrous union must be the result in a larger number of cases than if "fixed" suture—chromic gut is better than wire—is the most rational treatment. Before doing this, you may wait a few days for the extravasation to be absorbed. If suturing is performed, then it is better to fix in semi-flexion, because of the great pain on first attempts at flexion. This fracture is frequently compounded.

11. *Fracture of the Head of the Radius.*—This is also a pure intra-articular fracture. Quite frequently a fragment is broken off from the head. The symptoms are so indistinct that the diagnosis is difficult to make. Pain and tenderness over the head, slight movement of the fragment on pronation and supination are characteristic. If the disturbance is marked, resection of the head is necessary. Fixation for two weeks with the arm semi-flexed and the hand semi-pronated, is the best treatment.

Epiphyseal separation of the radial head is almost unknown.

12. *Fracture of the Neck of the Radius* is very rare. It is diagnosed by the failure of the head to accompany the shaft during supination and pronation, along with the other usual signs of fracture. In treating such a case fix the arm in a semi-flexed position to prevent displacement of the shaft by contraction of the biceps. Before closing it might be well to make note of some points of general interest in treating these cases.

A large number of these patients are children, and examination and reduction can be properly done only under an anesthetic. A large percentage of these fractures can be diagnosed with certainty only by the X-ray. In using the X-ray it is well to remember that complete ossification of the epiphyseal line of the olecranon occurs about the seventeenth year, and that a primary center appears for the olecranon about the twelfth year. Both of these conditions have been described as fractures. The center in the trochlea may be mistaken in children also.

Where the local swelling is great, it may be necessary to delay reduction. In general, however, the sooner the fracture is reduced, the better it is for the patient. The skin over the cubital fossa is thin, and is sometimes torn during forcible reduction.

In splinting about the elbow, remember that the inner condyle is higher and sharper, and not so well covered with muscles, hence it must be more carefully padded. As elsewhere, however, pad about and not on top of bony prominences. It is necessary to see that the splint immobilizes

the bone, without interfering with the circulation; it should, therefore, be wider than the limb. The fingers should be inspected often, massaged, etc., and even lightly bandaged, to prevent œdema and pain.

Except in the hands of an expert, massage should not be done till union has taken place. However, if done with gentleness and skill, early massage hastens absorption of the extravasation and union.

As in other fractures, treatment by hot air—300 to 400 degrees F.—has not been very successful. Sutures in bone sometimes act as an irritant, cause softening, and we get fibrous union. For that reason some surgeons use periosteal suture, which, however, is not so strong. Removable clamps have been used, and are well thought of by many men.

In closing let me again repeat that the fingers should be carefully watched, for it is said that fingers that have remained immobile for two months in the extended position are usually beyond hope.

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#### POST-OPERATIVE DIET.

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BY HENRY T. HOTCHKISS, M.D.

The nourishment of patients who have been subjected to surgical operation is not a complicated study. There are but a limited number of foods upon which man subsists. That the selection of these varied forms of nourishment is important will be granted. That their proper and tasty preparation, together with manner of serving, is equally important, will also be granted.

The class of operation is unconsciously, or subconsciously, considered by the doctor and nurse, and at once a selection of foods termed a "diet," suited to the case in hand, is detailed. For example, after gastrostomy, naturally, the stomach is given the least possible work, in the same way that meat and similar foods are excluded in Bright's disease. Carrying the idea still further, it is often the best kind of surgery to refrain from operation, so oftentimes, and indeed in abdominal cases for a limited time, the best diet is no food at all. To particularize, after these general statements, a composite picture may be made with the resulting dictum that minor operations, requiring general anesthesia, should not be followed by any form of food for as long a time as possible, say four hours. The minor operations

straightening a deviated septum, mastoid operation, amputation of phalanges of either extremity, for abscesses, large or small, uncomplicated curettage of the uterus, plastic operations generally, curettage of diseased bony parts, opening of sinuses and diseased tracts of limited area in the soft parts, circumcisions, and in short all operations which we undertake and perform with confidence in the patient's speedy recovery.

Why, it may be said, is four hours after operation selected for the first ingestion of food? A reason then: A beginning must be had. One or another hour after a reasonable time for the subsidence of the ether or chloroform intoxication is unimportant. Some definite instruction is to be given and, in an average number of cases, four hours after leaving the operating table does very well. Diet should be begun on teaspoon sips of water, as hot as can be borne, every 10 minutes for 2 hours. This relieves thirst in a degree, and tends to soothe the irritated stomach. If no emesis occurs, milk and lime water may then be begun—3ss every hour. If this is well borne increase the amount gradually, and lengthen the intervals, allowing for sleep and proper periods of rest for the stomach. The second day's feeding may include the first, adding broths, tea, coffee, soft toast, eggs, and in general a limited quantity of soft food. There being no contra-indications, full diet of solid foods may be allowed in reasonable quantity with a leaning toward a preponderance of soft foods. Adenoid and tonsilotomies, together with cleft palate, opening the œsophagus or extirpation of larynx require (advised by some) special diet.

The nose and throat operations mentioned, together with clipping elongated uvula require very little departure from general diet, after recovery from anesthesia. Avoidance of hot, salty or seasoned foods is more comfortable for the patients. Minor operations, apart from those over which the food passes, require but little special attention to diet, unless it is desirable to utilize the period of rest for feeding up the patient. Tubercular patients should have extra feeding with preponderance or at least vegetable and fruit diet in good quantity. These act as an anti-scorbutic. These patients, and especially the aged, need in addition stimulation, and this in good quantity at regular intervals until some result is apparent. This forced feeding and stimulation is good for certain chronic surgical cases.

Post-operative diet for cases of minor surgical operations should be begun, where there is



necessity at all, ante-operation. Except in emergent cases special attention to nutritious diet and digestion, with evacuation of waste products, should be begun at a proper period ante-operation, then with a rapid evacuation of the alimentary canal, the patient will tide over the temporary suspension with little or no discomfort, and the more rapid healing and union of the parts.

In more serious operations *sometimes* termed major, the same general rules apply, but in greater degree. Withhold all food and drink from the stomach for longer periods, varying from 12 hours to 90 hours. It is good practice to wash out the stomach of many cases of abdominal section, before leaving the operating table. Rectal alimentation, with the use of broths, meat juice expressed, beaten eggs, pan-creatinized milk, egg albumen, saline and other stimulating enemata. Many patients stand great shock and depression, and at the same time show to the intelligent physician a good morale. Do not hurry these with too precipitate alimentation. Time is a great element, where the case is holding and not losing ground.

Nowhere is diet of greater importance than in genito-urinary cases, the modern treatment of which is altogether operative, with or without general or local anesthesia. Diet for these patients should be absolutely bland. Wash out the kidneys with saline enemata or the ingestion of quantities of plain water, but do not stimulate. The opposite is true for cases of fluid collections in cavities. Withhold fluids in pleuritic effusion and give solids, promote diaphoresis and evacuation. For cases of brain operations, withhold stimulation and cerebral excitants.

In conclusion, always treat each case by special reference and regard to the requirements and danger spots present, and bear in mind the previous statement that post-operative diet, except in emergent cases, is to be begun ante-operation.

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#### THE DIET OF "DIATHETIC" CHILDREN.

BY LE GRAND KERR, M.D.

In a paper of this limited scope, much must be taken for granted. First: we must agree that there are such conditions as diatheses, and that these are present in childhood. Secondly: there is abundant room for discussion as to the number and the classification of these diatheses, but necessity demands that the writer make his own classification and submit these to you.

Most of the medical dictionaries give a very large number of the diatheses, and a large proportion of these are referred to childhood.

I recognize but four. These are the tubercular, the uric acid, the hemorrhagic and the obese.

In regard to the latter, it may be well to explain that there are two kinds of obesity; one which may be termed mere fatness, the other which is distinctly diathetic and dependent upon a failure in perfect oxidation.

The history of medicine, as far back as we can trace it, reveals the fact that in all times, recognition was made of the fact, that under apparently similar conditions, one person would become ill, while the other would remain in normal condition.

Pathology tried to explain this, but failed. Pathology, of necessity, studies disease upon an experimental basis, ferreting out the laws of the injurious effects of harmful agents upon all members of society. So comes the failure to explain the cause of every disease.

The disease may be the production of causes which are not at all general. The result is, that we are forced to the conclusion, that there exists some causal factor in the individual, which is not common to all members of society.

Recognition of this often means the detection of a diathesis, and such detection presupposes that appropriate methods will be used to prevent the occurrence of disease.

Now, such a vague expression as, a weak or a strong constitution, a lymphatic or bilious tendency, does us little good in the treatment of a child.

The only method which is of much service to-day, is the proper estimation of the functional capacity. Clinical medicine now tends toward the elimination of the term functional, and I believe that its use will become more and more restricted, as we better understand the conditions underlying it.

There is no question but that the study of the functional capacities of a child give us an early indication of the existence of a diathesis.

Now, we must have a clear conception in regard to terms. A diathesis in a *congenital* condition of the system, which renders it particularly liable to certain diseases.

An hereditary disease is not essentially diathetic. Heredity is the principle, by virtue of which the offspring *tends to resemble its ancestors*. This means that we are never clear as to hereditary influences, until we trace back further than the parents.

A congenital condition antedates birth, and is acquired in intra-uterine life.

A diathesis plays as important a rôle in the production of certain diseases as does the active cause itself. Under exactly similar exposures, the diathetic child will suffer, while the non-diathetic child will probably escape.

The fight then comes not against the exciting cause alone, but against the diathesis, also.

In regard to the uric acid diathesis, it must be remembered that all children of this class suffer from excess of acid. This may be partially met, by the use of small and easily digested meals. In children old enough, there should be abundant variety in the food, but not over-feeding, which is so apt to be the case.

After over-feeding, the next excess to avoid is the free use of starch, meat, white vegetables, and sweets. Tea, coffee and chocolate must be absolutely forbidden. Alcohol is such a poison in early childhood, that its use must depend upon very decided indications.

In the presence of definite manifestations of the diathesis, all vegetables used may be cooked in distilled water, which will extract and dilute the offending constituents.

Even with care in the diet, we are forced to recognize that there is no specific diet in childhood; the robust and the ill-nourished child are attacked alike. It is only during acute manifestations that much is accomplished by diet.

The chief errors are not enough food variety, not enough water, an excess of the proteids and of calcium.

The obese diathesis is one of the most difficult to handle. The indications are for lessened ingestion of fats and for increase of exercise. By the latter, we increase the demand for the former—a tough proposition.

Starvation will not cure obesity. Over-stimulation of the emunctories by diet or drugs is of no value. Oxidation by direct measures (as inhalation) accomplishes nothing.

There are but two means which will afford any permanent relief; the reduction of the ingestion of water and of fat.

Estimation of the amount required must be determined not by age, but by height. The average child will consume 90 grams of fat daily.

It is not difficult to reduce this rapidly to 20 or 30 grams.

Adipose tissue contains only 80 per cent. of pure fat, so that every 8 grams of the latter excluded from the dietary, means a possible reduction of 10 grams of such tissue.

The dietary for the hemorrhagic diathesis is as simple as it is hopeless. It must be rich in gelatine and in fresh fruit juices, but restricted in extractives, water, salt and all organic nutriment.

The early appearance of profuse hemorrhages usually results in our inability to do anything in the way of diet.

The object of dietetics in the tubercular diathesis, is to bring the nutrition up to the standard which is consistent with the highest level of health, and at the same time to improve the digestion and assimilation.

The first consideration would naturally be, to exclude from the diet, any article of food which is liable to be infected with the tubercular bacilli. In infants, this would be best accomplished by insisting that the child be breast fed. There is yet to be recorded a truly authentic case of infection through the milk of the mother.

In childhood, two types of the disease predominate; the respiratory and that affecting the digestive system. The first comes through contaminated air; the latter through the ingestion of infected food.

When the tubercular diathesis is suspected or recognized, the diet should be that of a normal child of corresponding size and age, plus a moderate increase in fat. This is most easily accomplished by the systematic use of cream, butter, chocolate, fried pork, etc., and oil.

The very best means of having the oil assimilated, without incurring digestive disturbances, is its use by inunction. It is a simple matter to secure the absorption and assimilation of 25 grams of oil daily, by this procedure, at the same time adding the valuable factors of massage and exercise.

With the advent of a distinct foci of infection, the object of diet remains exactly the same: bring nutrition to a standard and improve digestion and assimilation.

The method must be more vigorous, however. Most of the errors are in overfeeding the child. In infancy little can be done, except to increase the fat and reduce the proteids to the point of tolerance.

The fat is best increased by inunctions, and whether breast or artificially fed, by the addition of cream to the diet.

In older children, mastication should be thorough (this necessitates care of the teeth), and with a few exceptions the diet and especially the fats should be increased. These exceptions are:

1. Those cases which show an overweight.
2. Children with enfeebled hearts.



3. Cases with high temperatures from any cause.

4. Where there is decided involvement of the abdominal viscera. On the contrary, low weight, moderate activity of the disease and anorexia are decided indications for an enforced diet.

The subject of diet is so important in tuberculosis that I feel that a few figures will not prove uninteresting. While the list which follows is only suggestive, it indicates what our attitude should be toward the subject; that is, there should be—system.

A favorable start may be made by the introduction of this diet, divided to suit the particular taste of the patient.

#### AMOUNT TO BE TAKEN IN TWENTY-FOUR HOURS.

	Proteid.	Fat (ozs.)
	(Yields.)	
Meat .....	6 ozs. . . 1	$\frac{1}{2}$
Milk .....	3 pints. . . 2	$2\frac{1}{2}$
2 Eggs .....	.. $\frac{1}{2}$	$\frac{3}{8}$
Bread .....	10 ozs. . . $1\frac{1}{4}$	$1\frac{1}{4}$
Butter .....	2 ozs. . . Trace	$1\frac{3}{4}$
Potatoes ....	4 ozs. . . Valuable on account of the starch.	

This gives us these totals: Proteid,  $4\frac{3}{4}$  ozs. Fat,  $6\frac{3}{4}$  ozs.

As a start, this diet is sufficient, and should only be increased gradually, so as not to disturb the digestive system of the child.

I mention the use of hypodermic injections of oil and also of defibrinated human blood, only to condemn them. The use of the former is unnecessary, inunctions doing the same work without the dangers; while the latter is productive of little good, but of much harm.

Fresh vegetable juices seem to be of value, but the use of them has not been extended enough to warrant decided statement as to value.

#### CLINICAL ASPECTS OF TRACHOMA.\*

BY GEORGE W. VANDERGRIFF, M.A., M.D.

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The clinical material gathered in the public schools of Greater New York during the past five years has proved a fertile field for observations upon the nature and treatment of trachoma. Never before have we had, in this country, an equal opportunity for studying this disease. A decade or more ago, when immigration to this country was chiefly from Northwestern Europe, our opportunity for studying trachoma was less favorable than during the last few years, when the bulk of our immigration has come from

Southeastern Europe, a region infested with those infectious diseases which are engendered in a crowded, unsanitary environment. I do not doubt but that the present epidemic of trachoma in our schools was caused directly by the influx of these foreigners. That this epidemic is now waning is due, undoubtedly, to the commendable action of our Health Department in examining thoroughly and frequently the eyes of our school children.

Out of a study of many hundreds of cases of trachoma, in adults as well as in children, variations appear from the statements current in textbooks and in lectures. The venerable beliefs to which we cling concerning the nature of granular conjunctivitis need revision, in clinical aspects, at least.

"Trachoma," as described by de Schweinitz, "is an inflammation of the conjunctiva in which the membrane loses its smooth surface, owing to the formation of rounded granulations, which, after resorption, leave cicatricial changes."

This definition epitomizes the recognized teaching concerning the nature of trachoma. From it follows the idea of unity of all the various stages of the disease, the stages of pure granulations, of softening and rupture of the granulations, of cicatrization and contraction of the tarsal conjunctiva, with the sequelæ, pannus, entropion and trichiasis. To this belief that trachoma in all its so-called forms is a natural development of one phase out of another, clinically, objections exist. Cases of trachoma present themselves under two distinct forms of the disease; or better, perhaps, as two diseases, now included within the one term. The first is that form known as trachoma simplex, granular conjunctivitis, or uncomplicated trachoma; the second, as the advanced stage of trachoma, or trachoma after rupture and cicatrization of the granulations. Each of these two forms, generally looked upon as variations of one pathological condition, is, however, clinically distinct, arising in the conjunctiva as a separate disease, and in its later course differing markedly from the other. Nor does it appear from the great number of both forms that have been studied, that the second variety ever springs from the first, or that the two ever are mixed. Nor do we find a stage transitional from one to the other. For the present this distinction can be made a clinical one only until pathology and bacteriology affirm or deny it.

Trachoma simplex is a chronic inflammatory disease of the conjunctiva presenting the path-

\* Read before the Brooklyn Medical Society, Feb. 16, 1906.

ogmomic granulations. Beginning as a rule upon the upper tarsal conjunctiva as a few yellow points, or in the lower transitional fold as gelatinous sago-like grains, the disease must not be confounded with follicular conjunctivitis, which appears upon the lower tarsal conjunctiva as very small glistening points. One or both eyes may be affected. From the place of origin the disease invades both lids, till rarely, in very severe cases, the granulations attack the ocular conjunctiva, particularly in the region of the inner semilunar fold. The disease is never acute, though at any time in its course an acute catarrhal conjunctivitis may be engrafted upon it.

Whether the granulations are new growths in the conjunctiva or proliferated adenoid follicles is a mooted question difficult to settle until the bacillus of trachoma is discovered. It is possible, however, that the latter is the true theory, on account of the close relation existing between trachoma and adenoid hypertrophy in the throat and nose.

This form of trachoma is common both in childhood and in adult life, being prevalent wherever unhygienic conditions aggravate its contagiousness. Infrequently do the patients suffer pain or distress, other than a feeling a fullness about the eyes. Advanced cases show a bulging of the lids and often ptosis, but the grave manifestations, such as pannus and entropion, that accompany the second form of the disease never are present. Finally a great number of these cases resorb spontaneously; and others that do not fall under the physician's care persist unnoticed during the patient's life, forever acting as a source of contagion to others.

The second variety or succulent trachoma may be acute or chronic. Acute cases, the result of direct infection, may develop within a few days. They are accompanied by pain, lachrimation and photophobia; and are very resistant to treatment. Fortunately, they are rare in this country.

The chronic form, as a rule, appears at first upon the upper tarsal conjunctiva, from there spreading of the fornices and lower conjunctiva, but never invading the ocular portion of the membrane. It begins as a small area of inflammatory infiltration with engorged blood vessels, the conjunctiva becoming hypertrophied, velvety and succulent. This hypertrophy affects not only the conjunctiva, but also the underlying tissues, especially the tarsus. The disease is therefore far more serious, both in immediate and in remote effects, than is trachoma simplex in which the deeper structures of the lid are unaffected.

From the surface of the hypertrophy rough papillæ rise, and granulations filled with a yellow gelatinous material. These granulations never are very numerous and are distinguished from the granulations of trachoma simplex by the pathological condition of the underlying tissues. Even at an early period, new connective tissue forms in the conjunctiva and increases with the spread of the disease. At times, however, an entire lid will become hypertrophied before the new connective tissue appears. This deposition of new connective tissue is responsible for the contraction of the conjunctiva and of the tarsus, which in turn produces contraction of the whole lid, resulting in entropion and trichiasis.

Pannus may appear early and is confined to a portion of the cornea corresponding to the area of infiltration in the conjunctiva. Consisting of new-formed vascular tissue lying between Bowman's membrane and the superficial epithelium, it starts at the upper limbus and slowly approaches the center of the cornea, affecting the lower half as the infiltration spreads to the lower lid. Frequently we find that the severity of the pannus is far in excess of the amount of trachomatous infiltration in the conjunctiva, leading us to surmise that pannus may be due not only to the mechanical irritation of the rough conjunctiva, but also to a bacterial infection of the corneal tissue. Further, we notice that after the subsidence of the inflammation in the lids, the pannus still may persist in virulent form, that yields only to a long, persistent, bactericidal treatment.

Though these chronic cases are found mostly in adult foreigners, yet many of our school children have shown the incipency of the disease, generally in the form of small areas of conjunctival infiltration in the upper lid, with or without a few striæ of new connective tissue, and with a pannus beginning upon the cornea. In these cases have been found no evidences of a previous or a present trachoma simplex and they speak most forcibly for the hypothesis here advanced that the two forms of trachoma, simple and succulent, are two distinct pathological entities.

The treatment of trachoma simplex varies with the severity of the case. Many mild cases are cured spontaneously by a change of the patient to better hygienic surroundings. All cases presenting masses of granulations need some form of local treatment at the hands of the physician. Many caustics have been tried in the treatment of trachoma and most have failed. Silver nitrate,



with its unsightly argyrosis, is advocated still by a few. Silver compounds, such as argyrole and protargol, are of little worth, except as astringents; and they are apt to produce argyrosis after a few weeks' continued use. The copper stick is another fetish worshiped in spite of its objectionable irritation and tardiness in producing results. A large clinical experience has proven that the best caustic in the treatment of trachoma is a solution of bichloride of mercury in the strength of one part to 500 parts of water. Whether this remedy acts mechanically by breaking down the granulations and causing their resorption, or through its bactericidal power, or by a combination of both is impossible to say at this day of imperfect knowledge concerning the cause of trachoma. Be that as it may, the results obtained are all that can be desired. Compared with the copper stick it is rapid in action and practically painless after the first two or three applications. Nor does its use lead to the formation of connective tissue adhesions, but rather hastens the return of the conjunctiva to its normal condition. The solution is applied to the lids by means of a small cotton swab every second or third day, according to the necessity of the case. Many mild cases of trachoma simplex are cured by two or three applications, while others more severe, yet not severe enough for operation, require frequent applications for six to eight weeks. It is well to assist the action of the bichloride by the thrice daily instillations of an astringent such as a 0.5% solution of zinc sulphate.

Advanced cases demand operation. After thorough scarification of the granulations, under local or general anesthesia, with the lids everted completely, the contents are expressed by means of a small, moderately sharp Noyes forceps; for with this instrument the fornices and semi-lunar folds are reached more readily than by the Knapp roller forceps. Immediately after expression the raw surfaces must be rubbed vigorously with the 1-500 solution, and smeared with aseptic vaseline. During the operation care must be exercised not to wound more than is absolutely necessary the underlying mucous membrane, assuring finally a normal conjunctiva. Each subsequent day any adhesions in the folds of conjunctiva must be broken down and the 1-500 application repeated. Skilfully and thoroughly done, this operation leaves the conjunctiva, at the end of seven to ten days, in a smooth, healthy condition, showing no adhesions or scar tissue.

In the second form of trachoma bichloride of

mercury (1-500) is the most efficient remedy we have. Though the prognosis for a complete cure is seldom so good as in the first form, under the 1-500 applications continued faithfully at frequent intervals, the conjunctival hypertrophy disappears and with it the accompanying pannus. The new-formed connective tissue in the conjunctiva and in the cornea, of course, persists, but its advance is checked, and the conjunctiva regains a healthy state. Scarification of severe hypertrophy, both in acute and chronic cases, and expression of the granulations, are necessary, repeated, perhaps, several times, and followed always by the vigorous use of the bichloride of mercury. The after treatment of this operation, as of the operation for trachoma simplex, is as important as the operation itself. Adhesions of raw surfaces must be prevented, and a reinfection combated by the bichloride applications.

In these cases of succulent trachoma an excessive secretion of a super-imposed acute catarrhal conjunctivitis is a counter-indication to the further use of the bichloride. Applications of 1% or 2% solutions of nitrate of silver best meet this condition, and when the excessive secretion is checked the 1-500 treatment must be resumed. Pannus, when ciliary injection is present, requires atropine (0.5 or 1%) instillations and hot bathing in addition to the treatment directed to the lids. In the non-inflammatory stage dionin instillations in solutions of varying strengths, from 1% to 10%, and an ointment of the yellow oxide of mercury, grs. ii to the 5i. are valuable in clearing up the process. This mode of treatment persisted in patiently and faithfully gives brilliant results, even in obstinate examples of the disease. Many cases, almost blind for months, aggravated probably by the copper stick, respond so well to the bichloride of mercury that a healthy conjunctiva, and a good vision, rapidly are obtained. And these cases, as a rule, remain cured.

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#### TWO CASES OF INJURY OF THE EAR CAUSED BY LIGHTNING.

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BY WILLIAM C. BRAISLIN, M.D.

Observed cases of traumatism of the membrana tympani caused by lightning stroke are considered interesting enough to report in some detail. On the 30th of July, 1905, during a severe thunder-storm, a large bathing pavilion at Coney Island, crowded with bathers seeking shelter therein, was struck by

lightning. Five persons were killed, one of these being a young man who, with the two ear cases about to be reported, was just entering the shelter between the couple. All the fatal, and most of the injured, cases were in the immediate vicinity of the base of a large flag-pole which projected high above the roof. All had just left the salt water, and were still in wet garments.

Case I. Isaac G., aged 27 years, was first seen at the Brooklyn Eye and Ear Hospital on August 1, 1905, when he applied for relief of ear symptoms. Two days before he, his wife and several other persons were shocked by lightning, five of them fatally. This man was unconscious for three hours, and had suffered from painful burns and shock. On regaining consciousness he noted a fullness in both ears, roaring tinnitus and impairment of hearing in both ears. The hair was burned from the left side of the occiput. A seared burn appeared on the back of the neck, thence across the left shoulder-blade and down the left arm to the elbow. The burned area on the shoulder was a superficial, irregular mark, the size of a spread hand, purplish red in color.

*Ear Symptoms.*—These were noticed by both the patients immediately on regaining consciousness. In Case I the symptoms of tinnitus and impairment of hearing left the right ear within three or four hours, but became more marked in the left, and so continued until seen by the writer. In this case pain was also felt on the back of the auricle and at its attachment to the head. On the morning following the injury a blood-stained discharge from the left ear appeared, and was present at the time the patient came to the hospital. Examination of the drum revealed a perfectly round perforation  $\frac{1}{8}$  inch in diameter, slightly anterior to and below its centre, its edges reddened and raw as though a loss of its substance had occurred at this point. The remainder of the drum membrane was pale. The following day the membrane presented an appearance of uniform redness, except at the margin of the perforation, where it was somewhat everted, raw and swollen. Healing proceeded uninterruptedly.

Mrs. G., wife of Case I. Injured at the same time and manner as her husband, but less severely; was only momentarily unconscious. She immediately noticed that her hearing was defective; also a roaring tinnitus in both ears, worse in the left. She was examined on August 2d. The drum membrane presented a small perforation, now sealed with a scab of fresh, blood-

red, but dry extravasated serum. The perforation was in the centre of the drum just behind the umbo. The right ear in both cases presented no visible lesion.

As an explanation of the ear injuries, it is supposed by the writer that both were due to the presence of water in the ears, as both had just left the surf. Water, being a well-known, excellent conductor of the electric fluid, it is believed that a small charge of electricity followed a track of moisture in the external auditory canal, and thus in each case caused a perforation of the drum in finding its way to the Eustachian tube. Examination of these cases with Hartmann's set of tuning forks disclosed no lesion of the nerve or sound-perceiving apparatus, and both cases healed promptly under dry dressings, with only an inconsiderable impairment of hearing.

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#### THE AUTOMOBILE AS A PRACTICAL VEHICLE FOR PHYSICIANS.

BY ELIAS P. HICKS, M.D.

Automobiles have undergone a rapid revolution in the past five or six years. The crude experiments placed on the market in 1900, with their noisy engines and awkward-looking bodies, put together in a hasty and unscientific manner, resulting in a jolting ride when the car could be made to go, have been supplanted in the present year by cars that are very near the perfect state. When we consider the large amount of capital invested in this new industry, and the great number of scientific and mechanical minds that have been concentrated upon this subject, there is little reason to wonder at the rapid improvement of the motor car.

The automobile was a toy for the rich, when they were first introduced, and they needed a rich man to run one, not that the first cost was so great, but the "up-keep" was so large that it needed a fat pocketbook to keep one going. This has all been changed, and at the present time an automobile is within the reach of any man of moderate means, and where it supplants the horse-driven vehicle, a saving can be shown in maintenance and time.

The physicians were the first to use motor cars in their business, and the rapid way in which they are changing from the horse to the car, is proof that the change must be a good one. Runabouts, or motor cars seating two, are the prevailing type, and many manufacturers make a special



physicians' runabout. The gasoline car is the one that predominates, electric cars are the next choice, very few using the steam-driven carriage.

A comparison of the cost of a horse-driven vehicle and a motor car for a physician's use is not a very difficult proposition. A busy physician, who undertakes to drive daily in his professional rounds, will require an equipment about as follows:

Standard doctor's buggy .....	\$300 00
Cut-under carriage .....,.....	400 00
Single harness, hand made .....	50 00
Double harness, hand made .....	100 00
Two horses, at \$200 apiece .....	400 00
	<hr/>
	\$1,250 00

A coachman's uniform should be added to this sum, also the cost of veterinarian's services, shoeing, repairing, depreciation, and interest on the investment, but these can be omitted, as there are similar expenses, amounting to as much, in maintenance of automobiles.

The expense of maintaining a two-horse equipment would be about as follows:

Oats, hay, straw for two horses.....	\$240 00
Hire of man, at \$20 per month.....	240 00
Stable rent per year.....	100 00
Shoeing 2 horses .....	50 00
Harness repair, painting carriage, etc..	50 00
Sundries, brushes, blankets .....	20 00
	<hr/>
	\$700 00

Assuming that it is possible to drive 20 miles per day with this equipment, or approximately 7,000 miles per year, at a cost of \$700 for maintenance, the cost per mile would be 10 cents.

A good serviceable automobile, that would do double the work of this horse outfit, in the same time, would cost in the neighborhood of \$1,200, which is about the same price.

The approximate cost for 7,000 miles of use of such a motor car can be estimated as follows:

Stable rent, one year .....	\$100 00
Gasoline .....	60 00
Lubricating oil .....	10 00
Batteries .....	10 00
Chain .....	15 00
Spark plugs .....	5 00
Tires .....	100 00
Man's services, at \$20 per month.....	240 00
	<hr/>
	\$540 00

There may be worn or broken parts to replace, such as valves, springs, spark coils, etc.—no one

can say just what the expense will be. It depends upon the man who drives and takes care of the car. It is possible for a car to go through a year, and be driven 7,000 miles, with very little expense in the repair line, especially if the physician is his own mechanic, or at least superintends the work.

The figures given show that an automobile costing \$1,200 will replace an equipment of two horses and two vehicles of the same value, and that the cost of maintenance, everything considered, is in favor of the automobile, for the same distance traveled. As a time saver in getting around to see patients, and as a means of enjoyment, the motor car far outstrips the horse and carriage.

## TRANSACTIONS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MARCH 20, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

There were about 200 members present.

The meeting was called to order, and the minutes of the previous meeting read and approved.

#### REPORT OF COUNCIL.

The following candidates have been accepted by the Council:

Charles Lewis Atkinson, 75 Hanson Place.  
William Dillon, 192 North Sixth Street.  
Traverse Locke Maxfield, 452 Ninth Street.  
George W. Newman, 234 Leonard Street.  
Martin J. Sgier, 1036 Myrtle Avenue.  
Horace Martin Sloat, 149 Van Buren Street.  
George A. H. Smith, 313 Sixth Avenue.  
George W. Tong, 429 Third Street.

#### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Emil C. Bernauer, 860 Lafayette Avenue., N. Y. Univ., 1891.

Proposed by O. A. Gordon, seconded by J. A. Lee.

John Francis Dooling, 826 Bedford Avenue. L. I. C. H., 1903.

Proposed by W. F. Campbell, seconded by Membership Committee.

Harold Roy Dunton, 3 Lafayette Avenue, L. I. C. H., 1904.

Proposed by H. M. Moses, seconded by Membership Committee.

L. H. Finch, 119 Brooklyn Avenue, P. & S., 1903.

Proposed by W. Pfeiffer, seconded by S. H. Lutz.

Thomas L. Fogarty, 230 Union Street, L. I. C. H., 1891.

Proposed by W. F. Campbell, seconded by Membership Committee

Louis Harris, L. I. C. H., 1905.

Proposed by W. F. Dudley, seconded by Membership Committee.

Christian C. A. Lange, 2 First Place, P. & S., 1898.

Proposed by L. C. Ager, seconded by Membership Committee.

Matthew John Leland, 220 Sixth Avenue, N. Y. Univ., 1883.

Proposed by E. H. Bartley, seconded by Membership Committee.

Leo A. Lynch, 919 St. John's Place, Johns Hopkins Univ., 1903.

Proposed by W. F. Campbell, seconded by Membership Committee.

Thomas A. McKinnon, 600 Leonard Street, McGill Univ., 1899.

Proposed by G. D. Hamlin, seconded by Membership Committee.

Harry Michaelis, 236 Vernon Avenue, L. I. C. H., 1903.

Proposed by J. Watt, seconded by Membership Committee.

George I. Miller, 700 St. Marks Avenue, N. Y. Univ., 1896.

Proposed by B. C. Collins, seconded by Membership Committee.

Albert S. Nicholson, 210 Graham Street, P. & S. of Baltimore, 1880.

Proposed by M. J. Malament, seconded by Membership Committee.

Otto Niedner, 110 Pennsylvania Avenue, Univ. Munich, 1889.

Proposed by F. H. Miller, seconded by Membership Committee.

Maurice Rosier, 26 Morrell Street, Sewanee Med. College, 1900.

Proposed by M. J. Malament, seconded by Membership Committee.

Edward J. Smith, 1105 Flatbush Avenue, Bellevue, 1889.

Proposed by H. B. Hegeman, seconded by Membership Committee.

William H. Snyder, 763 Union Street, L. I. C. H., 1904.

Proposed by H. M. Moses, seconded by Membership Committee.

Stanley Bishop Thomas, 391 Second Street, McGill Univ., 1903.

Proposed by F. B. Cross, seconded by E. W. Skelton.

Abraham H. Wechsler, 313 Hart St., P. & S., 1901.

Proposed by M. J. Malament, seconded by Membership Committee.

George Wieseckle, 66 Bushwick Avenue, N. Y. Univ., 1884.

Proposed by M. J. Malament, seconded by Membership Committee.

#### ELECTION OF MEMBERS.

The following, having been duly proposed and accepted by the council were declared by the President, elected to active membership:

Moris J. Dattelbaum, 335 Stone Avenue.

Francis B. Doyle, 311 State Street.

George C. Owens, 275 Kingston Avenue.

#### DECEASED MEMBERS.

The Chairman of the Historical Committee reported the death of Charles Louis Fincke, L. I. C. H., 1899, Member 1901 to 1906; died March 19, 1906.

#### SCIENTIFIC SESSION.

##### PAPER: CUSTOM AND FASHION IN SURGERY.

By JOHN CHALMERS DA COSTA, M.D., of Philadelphia.

Discussed by Drs. F. H. Wiggin and J. R. Goffe of Manhattan, and Dr. J. W. Croskey of Philadelphia.

On motion, duly seconded and carried, a vote of thanks was tendered to Dr. Da Costa and to Drs. Wiggin, Goffe and Croskey, for their courtesy in addressing the Society.

Adjourned.

JOHN A. LEE,

Secretary.

#### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

##### STATED MEETING, MARCH 20, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

PAPER: "CUSTOM AND FASHION IN SURGERY," BY JOHN CHALMERS DA COSTA, M.D.

##### Discussion.

DR. FREDERICK HOLME WIGGIN said that the paper had been so exhaustive that it seemed



to him there was very little opportunity to say anything except to emphasize the points that the reader of the paper had brought out. He concurred in the opinion that an operation should not be performed unless an operator has a good reason in his own mind for doing it. He thought, as pointed out at the end of the section on exploratory operations, that there are often cases where there is a good reason for performing an operation, where it is not possible to know beforehand the exact cause of the disease. In former years he had seen many patients die for want of an operation because the different gentlemen who saw them in consultation could not agree as to the exact nature of the difficulty. They did agree that there was a condition which required rectification, but as they could not determine what that difficulty was they declined to advise an operation. Fortunately, he thought, that time is now passed, and believed, that now when we feel certain that there is a difficulty, an intestinal obstruction for instance, although we may not know for certain the cause of the difficulty, we will not hesitate to open the abdomen and relieve it. He thought, however, that gentlemen should not perform an exploratory operation without having a certain amount of surgical experience.

The speaker also agreed with the reader of the paper on the importance of simplicity in the use of antiseptics. He thought he had forcibly pointed out the great importance of having a reason for everything a surgeon may do—not to accept things blindly. Conditions and procedures that cannot be readily explained, he thought, are worthless. As to his own experience, in the last ten years he has been perfectly satisfied with the use of a moderate amount of scrubbing of the hands of the surgeon and skin of the patient with soap and water, using a piece of gauze saturated with green soap instead of a brush for cleansing the skin. Dr. Wiggin thought that many infections have occurred in the past from using a hard brush and scrubbing off the epidermis, especially about the vagina and external genitals. After washing off the green soap, he pours on the skin of the patient 65 per cent. alcohol to remove the grease and loose epidermis, and then washes the skin for a few seconds in a bichloride solution of 1 to 300, and then washes that off. The same procedure is used for the hands of the operators.

The speaker thought the hands of the opera-

tor should not be covered, if possible in abdominal operations. On the surface of the body the rubber glove is of advantage. Of recent years he has used a 1 per cent. solution of celloidin dissolved in ether and 96 per cent. alcohol, to which solution a small quantity of castor oil is added. This forms a coating over the hands and arms. It is flexible and the operator is not conscious of having anything on his hands. It is not soluble in water or ordinary alcohol, and you can dip your hands into alcohol or water if you like during the course of the operation. You remove the solution after the operation with equal parts of alcohol 96 per cent. and ether, in which it is soluble. That does away with the disadvantage of having to have various size gloves. This preparation, of course, is more especially suitable for hospital use, where you do many operations, as it has to be made in large quantities, 100 ounces at a time, so as to be able to dip your hands into it. Dr. Wiggin has also been in the habit for a long time of closing the abdominal wound in the ordinary way—subcuticular suture—sealing it with a 10 per cent. solution of celloidin.

In the use of saline solution he agreed with Dr. DaCosta and thought we use too much of it. He thought if gentlemen will take the trouble where they have a case under observation for a few days before operation and induce the patient to drink a reasonable amount of saline solution, and will also give them for several days saline enemas, making them retain them, that the vessels and tissues will be well filled with water, and the use of the saline will not be as often required as has been thought necessary in the past.

*(To be Continued.)*

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## LONG ISLAND MEDICAL SOCIETY.

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JOHN R. STIVERS, EDITOR.

The 145th meeting of the Long Island Medical Society was called to order by the President, DR. E. E. CORNWALL, on Tuesday, March 6, 1906, at 8.30 P. M.

DR. W. A. JEWETT discussed the subject of Diet from the standpoint of pregnancy. In ordinary cases he gives full diet. In nephritis, restricted diet. He had not had sufficient experience with

the anti-diabetic diet to make his conclusions of great value.

POST OPERATIVE DIET. DR. H. T. HOTCHKISS.

DIET OF DIATHETIC CHILDREN. DR. L. G. KERR.

### *Discussion.*

DR. H. L. SHIVELY: I feel that the subject of the diet and hygiene of tuberculosis has been so well threshed out in all sorts of literature, that there is little that is novel or interesting. My interest in diet has been largely influenced by my special interest in tuberculosis, and I cannot help feeling that a few thoughts should be directed to the consideration of diet in a general sense as it affects the sick and the well. In observing the social conditions among the poor and moderately well-to-do, in large urban populations, it occurs to me that while there have been so many advances in everything, that in this matter of diet we are not so well off as we were twenty years ago. There seems to be an increasing difficulty in obtaining proper food. It is said that the increasing cost and impaired quality of the meat supply are due to inefficient supply. The meat trust is largely answerable for the increase in cost, which has been such a serious matter to the poor, and at the same time there is an actual diminution in the amount of meat that comes to market. The methods of distribution are at fault. We in New York and on the seashore see a very poor quality of fish and poultry. They are semi-putrescent. We see cold storage fowl that are stained with the decomposing secretions. This difficulty is also encountered in obtaining fresh eggs, and vegetables to some extent, and also fruits. It is astonishing that here we are within sixty miles of the finest apple orchards, the apples that reach us are bad and cost as much as Florida oranges. The lives of many of the people in the tenements are such that the daughters are put to work early, and they do not learn cookery. These girls, when they marry, are not fitted to prepare palatable and nutritious meals from raw materials. It seems to me that this is so important, especially in the treatment and prevention of tuberculosis and the management of this disease, that it has now become a social question. Another difficulty in dealing with diet is the increasing commercialization of proper foods that are forced on the market. We cannot do better than to go back to the honest methods of cookery of our parents and grandparents, and get away entirely from these breakfast cereals. They are not as good as the old-fashioned oat-

meal and corn meal mush. These old foods are better than the get-ready-quick cereal preparations. They are more digestible and better for poorly nourished children and adults. I can recall one case of gastric indigestion which remained until I took him off of shredded wheat biscuit. I have seen children that were suffering from eating these get-ready-quick dishes. I hope you will concur in the feeling that we can get back to the old-fashioned methods with advantage instead of giving beef extracts, panopepton and liquid peptonoids, and all of these beef preparations and prepared foods, which are economically and scientifically mistakes. You get a very small quantity of food, an indeterminate quantity of alcohol, and get it at a high price. I think an egg or a steak contains six or eight times the nourishment that these prepared foods do. In an incipient case of tuberculosis, the battle is half won if we can put the patient on milk and eggs and cream. This is the most important factor in the patient's recovery. With a milk diet there should be added as much wholesome food as can be digested.

In some cases the patient will say that he cannot take milk, but this more often exists in the patient's imagination. The milk can be modified with bicarbonate of soda or lime water. We also have kumyss and matzoon also, and they are of value. These two latter are rather costly for the poor patient, but you can instruct them how to make it themselves, and it is very simple. Buy one bottle of it. Add two tablespoonfuls of it to a quart of milk and allow it to stand in a warm place for 24 hours; it has then been converted into matzoon; then beat it up with a Dover egg beater; put it on ice and you can have it indefinitely. Always keep two tablespoonfuls to make the next batch.

DR. HOTCHKISS: I thoroughly coincide with the doctor's interesting remarks. Matzoon can also be made by using an ordinary yeast cake. Many of the breakfast foods are not wholesome. I am told that grape nuts is made of old bread. The comprehensive way in which Dr. Shively treated the subject of the supply of foods leads me to say that I cannot condemn enough the numerous slot machines.

DR. CORNWALL: Medical science seems to have advanced of late years less in the direction of dietetics than in many other directions, and it seems to me that less stress is laid on it in the courses of instruction in our medical schools, and in the practice of most of us than it deserves. This hardly seems right in view of the fact that



diet is a primary, a fundamental element in the treatment of disease, and that very many of the diseases met with in our highly artificial civilization are of dietetic origin.

In adding my little contribution to the discussion of diet this evening I will say a few words about the diet in that vague and ill-defined condition called lithemia or the uric acid diathesis. I prefer the term lithemia, because the other presupposes more than many of us are prepared wholly to grant. This diathesis is undoubtedly a very real thing, but that it is completely explained by the assumption of a deficiency in the eliminative power of the individual as regards uric acid, is not so undoubted. It is very likely, indeed, that this eliminative insufficiency in the affected person does result in the storage of urates in the system, whence they come out on occasion into the circulation in sufficient quantity to clog the circulation in some way, and interfere with oxidation, alimentation and elimination, or are deposited in mass in certain tissues producing local inflammation. But that, though a very important, and possibly an essential element, in the lithemic diathesis, is evidently not the whole of it. At least, in prescribing diet for a patient suffering from lithemic manifestations, we are seldom able to regulate that diet strictly in accordance with the chemical and physiological indications presented by the uric acid theory. We find that there are other and very important factors to be considered. The more I study this subject the more important I find these modifying factors to be.

Most of the cases of lithemic disease that come under our observation are in middle aged or old people, and in those a diet free from the purin bodies (which get from the stomach into the blood very soon, and there become free uric acid by slight oxidation), can seldom be prescribed. Meat, at least in small quantity, most of them must have. We can more easily limit the ingestion of sugar, which is injurious on several counts. It is only in acute cases or in young subjects that an exclusive diet of milk, cereals, cheese, butter, green vegetables, potatoes, and fresh fruits can be advantageously given.

Besides age, we find a modifying factor in the previous habits of eating of the patient. His tissues have become habituated to certain articles of food, and too violent a change is apt to do him harm.

The general physical condition of the patient also affects the dietetic prescription. A weakly patient cannot stand as rigid a diet as a strong

one might, and no improvement in special symptoms can compensate for impairment of the general health.

The existence of other diseases, also, may modify the diet. A lithemic who also has tuberculosis should disregard the lithemic indications and arrange his diet according to the indications presented by the tuberculosis.

The particular variety of the lithemic manifestation also may greatly modify the diet. In acute gout or rheumatism, or gravel, or sick headache, a highly restricted diet may be advantageously prescribed, but in chronic rheumatism, or chronic nephritis, which is a very common lithemic manifestation, the indication to maintain the patient's nutrition takes precedence of everything else.

Finally, in the matter of the lithemic dietary, I would like to say that the quantity of food taken is quite as important as the quality, and that the limitation of the quantity to the needs of the body is in most cases the first and chief indication.

DR. WESTBROOK: I was glad to hear Dr. Hotchkiss say that it was well to go slowly in major operations. I have been more and more impressed with this, that it was often a great help if we practically withheld food entirely after abdominal sections for from three to five days, especially where there is peritonitis. In these cases they have lived ten days, where I expected them to die in three. In laparotomy cases I have been giving them nothing for three or four days. They have had strained broths on the third day simply to relieve the minds of the patients and relatives. Then for four or five days I give them dry toast to chew and to start the saliva flowing. I have held off milk and they do better. A week ago I did a complete hysterectomy for a large fibroid and the young lady did not take any food until yesterday, and then dry toast. She has no gastric dilatation. Post-operative diet begins before the operation, as Dr. Hotchkiss says. I give no food, but give them an enema. Where food is used it starts up decomposing changes, gases and auto-intoxication.

DR. HOWE: I feel that what the President said in regard to lithemia and uric acid diathesis, touched the real trouble we have in feeding these cases, especially the nephritic cases. In all these cases we must reduce the nitrogenous factors, and yet he admits that he is compelled to give them meats and nitrogenous foods. I believe the almost complete removal of nitrogenous factors from the diet of lithemic, uric acid and nephritic cases, is radically wrong. The cases do not maintain their strength. What he said with

regard to the intestinal condition is one of the broadest subjects in the treatment of these cases. You have to have a good food and an intestine free from any fermentative process. These cases have either small livers or lungs or both, and cannot be helped to any great extent. I saw a dozen cases of chronic nephritis, and most of them were on a starch and meat diet. They were fed on just as much meat as they could oxidize, and in every instance except one the nephritis cleared up. I have seen rheumatism clear up under a heavy red meat diet. Recently I saw a case of albuminuria with a double pulse tension. He was put on the regulation treatment and he has gone back, and the only time he is improved is when he goes on a meat diet. Feed them carbohydrates and meat enough, so they may thoroughly oxidize them, and it will be thrown out as urea.

DR. GEIS: I have had 35 attacks of acute articular rheumatism myself. I have tried milk diet and full diet, yet still I get it. The attacks are all the same. The pains are just as bad, no matter what diet I take, and I get well just as quick. I use the salicylates.

As to reducing weight, the Kissingen and Vichy treatment without change of diet will reduce one from three to five pounds a month without reducing strength.

DR. RATHBUN: As to forced diet. Plenty of milk, eggs and meat juices every three hours would maintain a leucocytosis. With the frequent use of laxatives the food will be assimilated and properly taken care of.

DR. HUBBARD: As regards the use of the carbohydrate diet in the treatment of lithemia, in septic cases with high temperature it is not contra-indicated, and you require forced diet to give the patient more power to throw it off.

DR. WESTBROOK: I call to mind, in speaking of toast to chew, a young lady whom I treated for typhoid, and I saw a piece of gum tucked away under her tongue. She asked me to allow her to have it. It acted as a cleanser and it satisfied her. To satisfy thirst, I give very large rectal enemata with an ordinary douche bag elevated six inches; the patient will take up two quarts in an hour.

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#### BROOKLYN MEDICAL SOCIETY.

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The 110th regular meeting of the Brooklyn Medical Society was held on Friday evening, February 17, 1906.

The President, DR. ALFRED BELL, in the Chair. Minutes of the previous meeting read and approved.

The following were admitted to membership:

A. A. Hussey, M.D.

A. P. Northridge, M.D.

L. N. Anderson, M.D.

#### APPLICATIONS FOR MEMBERSHIP.

F. J. Monahan, M.D., 225 Roebling Street.

N. L. North, M.D., 150 Hancock Street.

Walter Truslow, M.D., 142 Clinton Street.

Henry Schulmann, M.D., 596 Bainbridge St.

On motion the names of Dr. John A. Cardwell and Dr. William I. Cocke were placed on the list of Associate Members.

A letter of condolence was sent to Dr. I. I. Bowen, who has recently lost his father by death. Also a letter of sympathy to another member, Dr. R. S. Fowler, whose father, Dr. Geo. R. Fowler, recently died.

#### CLINICAL SECTION.

1. Dr. H. L. Schelling reported a Morrison's Operation for Ascites Abdominalis. The patient, a female, was presented by him at the meeting, three years having elapsed since the operation.

2. Dr. H. W. Lincoln reported a case of Suspected Carcinoma of the Stomach. He also gave an interesting account of a case of Acute Spasm of Cardiac end of Stomach, the obstruction sometimes being present, at other times the passage being entirely free.

3. Dr. R. S. Blatteis presented a patient with Bronchial Abscess. The patient, a girl 10 years old, was shown by him about two years ago, and was presented now to show her general good condition, no operation having been performed. The abscess followed the swallowing of a piece of wire, which lodged in the left bronchus. This was eventually expelled during a violent fit of coughing, following which, for about a year, the child coughed up about 20 ounces of pus daily. At the present time the child expels a total daily quantity of about one and one-half ounces. An animated discussion followed, *pro* and *con*, as to the wisdom of operative measures in this case, some holding that expectant treatment would be wiser, others advocating operation to secure better drainage.

4. Dr. C. LeGrand Kerr reported a case of Mental Deficiency. The child was unable to appear, owing to acute illness, but Dr. Kerr read the history, and regretted that he could not show what the patient was able to do in exercises, both physical and mental, following careful and per-



sistent training. A general discussion followed, particularly along the line of special instruction necessary for such cases. Proper care and attention to the backward children in our public schools was strongly advocated.

The paper of the evening was on Clinical Aspects of Trachoma, by Dr. G. W. Vandegrift.

A discussion by Dr. J. W. Ingalls and Dr. E. Wright followed.

ALFRED E. SHIPLEY, M.D.,  
*Recording Secretary.*

## THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, JANUARY 4, 1906.

The President, T. B. SPENCE, M.D., in the Chair.

### TYPHOID NECROSIS OF THE COSTAL CARTILAGES.

DR. A. T. BRISTOW presented a patient and stated that this gentleman in 1901 had an attack of typhoid fever. Ten months after his recovery an area of suppuration had appeared and been opened about the fifth costal cartilage; and he had been treated by injections of peroxide, etc., for about a year before the speaker saw him. The patient then came under his care, and on October, 1903, twenty-two months after the typhoid, and about a year after the original opening, he operated to remove a large area of necrotic cartilage until he found perfectly hard, sound cartilage. The speaker made a wide wound, turned back a flap and exposed the cartilage. The usual treatment, packing by iodoform gauze, followed, and on November 5, 1903, he operated again, and found the necrotic process had involved the cartilage of another rib. On April 5, 1904, Dr. Bristow operated again and removed more necrotic cartilage. On April 17th he operated again, and removed some more necrotic cartilage. Each time he removed everything in sight. He had clear, clean, perfectly healthy cartilage as far as he could see. On October 19, 1904, he operated again, and the last time on February 6, 1905. Subsequent to this last operation the patient developed a mild attack of pneumonia, and although the attack was a mild one he was in a great deal of peril for a few days.

Here was a record of five operations under general anesthesia in two years. This does not include numerous curettings under cocaine anesthesia. The gentleman finally is well, and the speaker said he did not know anything which

illustrates the tedious course of this typhoid necrosis of cartilages, particularly when they occur in a man beyond 60, better than this case.

### OPERATION FOR GASTRIC ULCER.

DR. A. T. BRISTOW reported the case of a female patient, aged 25, whose illness commenced three months before admission to the hospital, and began with attacks of vomiting immediately after eating. These attacks occurred about twice a week. She also complained of flatulence and acid eructations. Two months ago the patient began to have paroxysms of pain in the right hypochondrium running around the right side to the back. These attacks occurred weekly and were associated with nausea and vomiting. For the last six weeks the stools had been clay colored. Jaundice and biliary fever were absent. There was tenderness on pressure in the right hypochondrium during the attacks. The last attack of severe pain occurred six days before admission. The attacks were associated with the ingestion of certain foods.

The diagnosis was somewhat doubtful, but rested between cholelithiasis and gastric ulcer. Exploratory laparotomy was accepted by the patient and performed November 7th. A median incision was made above the umbilicus and the bile tract was entirely explored with entirely negative results. The stomach was then brought into the wound. Examination showed no external evidence of ulcer, but on palpation there seemed to be some thickening of the stomach wall close to the pyloric orifice. The anterior wall of the stomach was incised and the posterior wall inverted through the incision, whereupon an erosion of the mucosa was discovered close to the pyloric orifice on the posterior surface of a dark red color, from the surface of which minute droplets of blood exuded. The eroded area was about an inch in diameter. There was no deep ulceration of the mucosa to justify excision of a gastroenterostomy. In fact it was evident that this was a gastric ulcer in its earliest stage. The hemorrhage from the eroded surface was too slight to have been manifested except to microscopic research, which accounted for the absence of melæna or other evidences of hemorrhage. The surface of the erosion was lightly touched with the actual cautery, so as to form a superficial eschar. The wounds in the stomach and abdomen were then closed. The subsequent recovery was uneventful. For two weeks the patient was fed by rectal enemata solely, being allowed hot water

only by mouth. Subsequently the patient was put on appropriate diet.

#### GUNSHOT WOUND OF STOMACH.

DR. A. T. BRISTOW presented a patient, an Italian, aged 20, who was admitted to the Bradford Street Hospital December 6, 1905. While examining a .38 calibre revolver it discharged, and the ball penetrated the abdominal wall at the costal border opposite the seventh interspace. The opening was one-third inch in diameter and was fairly clean cut. There were no powder stains on the abdomen, but they were found on the shirt. The ball was not located by probe. The pulse was 78, full and strong. There were no pain and tenderness except around the entrance of bullet.

Immediate laparotomy was performed. An incision three inches long in the median line above the umbilicus was made. A small punctured wound was found in the anterior stomach wall. No wound was found in the posterior stomach wall or intestines. The peritoneal cavity was clean. The wound in the stomach was closed by Lembert sutures. A drain was introduced below and around the stomach wound. The margin of the wound at entrance was cut away and the wound packed. The patient made an uneventful recovery.

#### BULLET WOUND OF DIAPHRAGM, LIVER AND STOMACH.

DR. J. B. BOGART reported the case of a young colored man who was shot at Coney Island something over a year ago in very much the same situation as Dr. Bristow's patient and anteriorly low down on the left side. He was taken to the Emergency Hospital at Coney Island and during the night was brought to the Kings County Hospital. The next morning the speaker saw him, found him practically exsanguinated, and learned that during an attack of vomiting in the night he had vomited a .32 calibre bullet, which somewhat simplified the diagnosis and indicated the surgical procedure. The speaker had him infused to prepare him for the operation (his pulse was 140 and weak), and opened the abdomen which he found full of blood, fluid and clotted; in fact, the emptying of the abdominal cavity was such an extensive and prolonged procedure, that he concluded there was some active hemorrhage, because the blood was welling up all the time, and it seemed to him fresh bleeding was going on, but he could not find any active bleeding and went on with the cleansing process.

Then he found that there was a wound on the anterior surface of the stomach of a triangular shape, a small wound which was not bleeding. He also found a hole in the left lobe of the liver, about one and one-quarter inches from the free border, and a hole in the diaphragm corresponding with the opening in the liver. There was no active hemorrhage from either of these wounds. There was only a small quantity of fluid in the peritoneal cavity.

The speaker introduced a suture of catgut in the diaphragm and closed that wound. He passed a purse string suture on both sides of the liver wound, and made a Lembert suture in the stomach, washed out the abdominal cavity with saline solution, closed the wound without drainage and put the patient to bed. He made an uninterrupted recovery. It was somewhat remarkable, the speaker said, that that bullet should have stopped in the stomach and be ejected in that way. The chest cavity gave no trouble.

#### BULLET WOUND INVOLVING THE AXILLARY ARTERY.

DR. J. B. BOGART presented a case that was brought to the Bradford Street Hospital on October 29th last, at eight in the evening. Dr. W. H. Maddren gave the first aid. The patient was an Italian, 27 years of age, a barber. He was brought into the Bradford Street Hospital immediately after the shooting. Grains of powder were seen to be embedded on the side of the neck and chin. There was a moderate hæmatoma over the left breast. The right radial pulse was full and strong and the rate only moderately increased. In the left arm no pulse could be detected at any place, but the arm was warm and the veins distended, and the blood quickly returned from below after being pressed out of the large veins. The arm could be moved voluntarily and gave a moderate amount of pain. This is an interesting point in the history—the ability to move the arm. A bullet wound was to be seen in the anterior axillary line four inches below the clavicle, with a second wound on the left side of the chin with a moderate hæmatoma. The bullet entered to the left of the chin, and the speaker took it out of the back of his neck by making a shallow incision one-half inch deep.

The patient was anesthetized and an incision made over the hæmatoma partly across the fibres of the pectoralis major and extending into the axilla. The brachial plexus was quickly found and followed up, no arterial pulse being detected in the axilla. Hemorrhage was not profuse until the pectoralis major was partly divided, when a



gush of blood occurred. The bleeding was controlled by the finger and four clamps put on the bleeding artery. Not until the fourth clamp was applied did the bleeding cease. The procedure had so far taken about 45 minutes and the patient was in a collapse, so the clamps were left *in situ*, none being removed, although it was apparent that some, perhaps most, of the nerves of the brachial plexus were included. The wound was then packed with gauze and a few silk-worm gut sutures put into the skin to give pressure.

Large saline enemata were given every hour, the first being simultaneous with the operation, but very little strychnia; morphia in one-quarter grain doses hypodermatically. The patient rallied quickly, the pulse improving in a very short time. He was transferred to the Kings County Hospital the following morning, where Dr. Bogart first saw him, and his condition was good. He had a fair pulse, and the speaker was able to detect the pulse on the injured side; the arm on the injured side was warm, and it was only moderately swollen, indicating a sufficient circulation. He was reanesthetized, the wound reopened, the packing removed, and at once enlarged by dividing the pectoralis major entire and also the pectoralis minor, exposing the clamps Dr. Maddren had placed on the night before. The doctor recognized that all of the cords of the brachial plexus had been included in the clamps, also the axillary artery, the vein was not included. He passed a temporary ligature above the clamps which controlled the artery, and also one around the vein, and then proceeded to remove the clamps from the nerve and finally from the artery itself. This was followed by a gush of arterial blood, which was controlled by raising up the ligature which was passed around the artery. An inspection of the artery revealed a longitudinal opening one-half inch long, fairly clean, and the question of suture presented itself. Dr. Bogart took the more direct method of ligature, and for these reasons: When the operation was begun, although the artery was completely clamped, he could detect the radial pulse on the side that was injured, and he concluded that if the artery was ligated that the collateral circulation had been so far established that there was no danger of the loss of the arm. Also that as he had to do a second operation and the primary one had been done under unfavorable conditions, the chances for infection were exceedingly good, and he thought there might be a fair prospect of secondary hemorrhage if he trusted to a suture of the vessel. He then sutured

the ends of the divided muscles with chromicized catgut and closed the external wound with silk-worm gut sutures, introducing a large drainage tube through a posterior flap of the wound. It was at once seen that the wound was thoroughly infected, and in a few days he was obliged to remove all the sutures for drainage, and considerable sloughing of the tissues in the axilla occurred. This was accompanied by a considerable amount of bleeding in the dressings whenever they were changed. About ten days after the operation, during one of the dressings, quite a profuse hemorrhage occurred, evidently from the axillary vein, which was controlled by packing. At the next dressing there was no hemorrhage, but, on removing a bit of necrotic tissue, hemorrhage from the axillary vein started up freely. This was controlled by sponge pressure, and the speaker attempted to put a clamp on the bleeding point. Then the bleeding went on somewhere else, and this was repeated several times until he was satisfied that the condition of the vein was such that it would not hold a ligature, and that the best thing to do was to control the hemorrhage by pressure. During these attempts to control the hemorrhage by the application of clamps the patient must have lost two to four ounces of blood. Dr. Bogart applied an inverted pyramid of iodoform gauze of considerable extent, so as to apply considerable pressure, and instructed the house surgeon not to remove it for four days. No further hemorrhage occurred, and the subsequent course of the wound was uneventful.

The patient suffered no pain from the clamped nerves, but has had since a complete paralysis of the entire upper extremity. What the final result is to be in reference to that the speaker could not say. Under the circumstances there was nothing left for Dr. Maddren to do, when the case was first operated on, than to control this hemorrhage, which was done in the quickest manner possible. When the nerves were caught in the clamp he did not dare take off any of them for fear further hemorrhage might occur, the patient then being in extremis.

The question of wounds of the large arterial trunks has increased in interest since Murphy's work in making an anastomosis of these vessels. He has reported a case in which he made an anastomosis of the femoral and also one of the axillary artery, in each instance excising a portion of the vessel and introducing the proximal end into the distal by passing sutures into the proximal end, and then carrying them through the dis-

tal end, then reinforcing them by putting a row of sutures around them, and finally reinforcing that with the arterial sheath. The result has been in both of his cases that the patient made a satisfactory recovery. There was no leaking and the result was as good as one could desire. Dr. Bogart found, however, another case in which a Chicago surgeon repeated this procedure on the popliteal vessels, and although when the operation was begun the foot was bloodless and cold and useless, when the anastomosis was complete and the pressure removed from the bleeding point, the blood current returned, and after two or three days everything went well. After that time there was a sudden attack of pain and a portion of the foot became cold again. In a short time gangrene appeared in the toes and the patient lost a portion of his foot. Some months after, on account of scar tissue (an amputation was done at the mid-tarsal joint), the wound was re-opened and the surgeon made an examination where the anastomosis was made, and was gratified to find that the blood was flowing freely through the vessel, and the result was all that could be desired. The natural inference is that, following his operation, a partial embolus formed, and that was carried into the circulation and partly blocked an artery resulting in the loss of the patient's foot.

In this case suture of the vessel could not be entertained, the vessel was completely destroyed. There was just a mere shred of it at the posterior portion, and but for the surgeon's timely anastomosis the patient must have lost his leg at least at the knee joint. As it was, he suffered only the loss of his foot.

There are now a great many cases on record, where the femoral, axillary, subclavian iliac arteries have been sutured and sutured successfully. The suture material has been sometimes of silk and catgut, sometimes interrupted and sometimes continuous. It has not seemed to make much difference in the result, although the preference seems to be for a continuous suture. Catgut swells and better plugs up the needle hole. In a very short time the tissues unite, so that a catgut suture seems to be all that is necessary to close the vessel satisfactorily. All who have reported these cases have emphasized the importance of reinforcing the artery, not only with its sheath, but also any tissue in the neighborhood to be closed against it. In a number of cases the wounds have been closed without drainage. In one case a portion of muscle was brought over the wound in the artery to give strength to it.

In sutured wounds of the large veins we have nothing to apprehend.

In none of these cases did air enter the circulation, and in none of these cases was there evil result from the formation of clots in the veins.

#### CERVICAL SYMPATHECTOMY FOR EPILEPSY.

DR. R. S. FOWLER presented a patient who, when nine years of age, fell from a tree and received an injury to his head. Since that time until a year ago he was the subject of epileptiform convulsions at varying periods from one day to two months. One and a half years ago the speaker did the Jonnesco operation on each side of the neck, doing the operation at one sitting, removing the middle and upper ganglia and about half the lower. Since that time the patient has had no more epileptic convulsions, except at such times as Dr. Fowler operated on his eyelid for the result of a burn.

#### PLASTIC OPERATION FOR DEFECT IN TIBIA.

DR. R. S. FOWLER presented a patient who, when three years of age, had a disease of the tibia which resulted in necrosis, and a sore about two by two and a half inches, which did not heal until he operated on him eighteen months ago. At first he curetted and cleaned the bone and made it in fairly healthy condition; and then, on account of the condition of the surrounding skin, there was no possibility of doing any local grafting, so he took from the calf of his other leg an elliptical shaped flap, and sewed that edge of the flap which he dissected over to the edge of the other one and put the leg up in a plaster cast. As soon as the integrity of the flap was established, he cocaineized it, and removed it from the flap of the right leg. Most of the flap healed nicely. When the patient stands on the leg for longer than a usual day's work he has some congestion of the veins of the leg.

#### TUBERCULAR SHOULDER IN AN INFANT.

DR. W. LINDER presented a patient five months old who was referred to him when five weeks old, and admitted in his service at the German Hospital. It showed tuberculosis of the shoulder joint. There was fluctuation and the patient was much emaciated. An incision was made to relieve this fluctuation, and a culture of the fluid was examined and found to be tubercular. Iodoform emulsion was injected about four or five times and the patient made an uneventful recovery. He presented the case as of importance, because the shoulder joint is rarely involved in



tuberculosis, and because of the age of the patient.

#### *Discussion.*

DR. L. N. PEARSON said that he was interested in the case of tubercular shoulder joint and the excellent results from the iodoform emulsion. He had used iodoform in tubercular conditions a number of times, and not being able to obtain any favorable result, has abandoned it. Some years ago he adopted the method of treating tubercular conditions by curetting away the carious portions of bone, and packing the wound with equal parts of glycerin and ichthyol. Some of his cases have required more than one operation, but in no case has he failed to get a complete cure. It has been so much better than anything else he has seen, and the results have been so uniform, that he wished to emphasize it on every possible occasion.

DR. J. B. BOGART stated that in reference to these abscesses in connection with the joints of very young children, quite a large experience has taught him to look upon them as favorable for operation, when the pus is evacuated, whether we make iodoform injections or not. He agreed with Dr. Pearson, and has never been able to convince himself that he did any good with iodoform as an injection in these joint cases. He has satisfied himself that he has had the symptoms of iodoform poisoning at times, and has discontinued that treatment.

In these cases, in children, of pus in the joints, which are tubercular, he found, sometimes unexpectedly so, that the results of treatment are good; and another thing, the function is not lost. He has not seen any about the shoulder, but more about the knee and ankle. They recover and the functions of the joint are almost completely restored.

DR. C. D. NAPIER doubted a little whether that was a case of true tuberculosis of the shoulder joint. It certainly was exceedingly rare in young infants. If the pus had not been examined and the bacilli found, he should be disposed to class it as acute epiphysitis, which heals up very quickly with free opening and free drainage and with often a very good result. This, of course, varies according to the case, as well as the time of opening. He has seen a number of joints which were decidedly damaged, perhaps the whole end of the bone, the neck and head of the femur in a hip joint being destroyed, so that only a stump was left.

DR. W. LINDER said that when he first saw

the joint the swelling was characteristic. The examination of the fluid by Dr. Laing, of the German Hospital, cleared all doubts as to whether it was tuberculosis. He found tubercle bacilli. The synovial membrane only was involved, the speaker did not believe there was any bone lesion. The joint closed up in three weeks' time and the general condition of the patient improved markedly.

#### CARCINOMA OF THE BREAST.

DR. W. LINDER presented a patient who had had a carcinoma of the lower portion of the breast with considerable loss of skin. He had followed out Warren's flap operation, and found even with this flap it was impossible to close the space, so he deviated a little from this technic and succeeded in closing the wound, which was the largest he had seen, and he showed the patient for this reason. Dr. Linder, instead of bringing the flap to the lower angle of the wound, brought it across to close the central portion of the raw surface. The lower portion was closed by stitching the lower margin of the wound to the flap. The upper portion was covered by reflecting a flap from the redundant axillary tissue.

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### THE BROOKLYN GYNECOLOGICAL SOCIETY.

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STATED MEETING, JANUARY 5, 1906.

A. A. HUSSEY, M.D., Editor.

The President, J. O. POLAK, M.D., in the Chair.

#### PERSISTENT BROW PRESENTATION CONVERTED INTO AN OCCIPITO POSTERIOR.

DR. A. A. HUSSEY reported a case of dystocia due to persistent brow presentation. The case came under his care in Dr. Stuart's service at the Brooklyn Hospital. She was a primipara with a negative history. Her pelvic measurements were normal. She had been in labor twenty-four hours when first seen by the doctor, and she was exhausted. The membranes had ruptured four hours earlier. The uterus was spastic, the pains being almost continuous. There was a high retraction ring. The brow presented in the left anterior position. It was not engaged. The cervix was dilated. Under full anesthesia, the left hand was introduced into the vagina. The head was lifted up and pushed to one side, and

the hand passed up as far as the child's navel, where it was arrested by the constriction of the retraction ring. This band was so firmly contracted about the body of the child that the doctor was unable to get his hand by without using more force than he considered safe. The question then arose in his mind as to the best method of procedure. A podalic version was contraindicated by the high retraction ring, the thin lower uterine segment and the spastic condition of the upper segment. He, therefore, decided to convert the presentation into an occipito posterior. This was done by flexing the head with the internal hand and with the external hand crowding it down into the inlet. The occiput came down in the right posterior position. The axistraction forceps were applied and the head brought to the perineum. The forceps were removed and the occiput rotated to the front by the hand in the vagina. The forceps were reapplied and the head delivered one hour and a quarter after the beginning of the operation. The child was resuscitated with difficulty. He died suddenly at the end of forty-eight hours. The mother sustained slight lacerations of the cervix and perineum. She made a good recovery.

#### *Discussion.*

DR. J. O. POLAK said that Dr. Hussey's case was interesting. He could report a case of the same kind, that showed the opposite of good judgment. Dr. Hussey had shown his extremely good judgment by flexing the head and making an axis traction case out of it. The case which he desired to report was a brow presentation in a primipara, with membranes ruptured and a spastic uterus, which was handled by several gentlemen early yesterday morning. A version had been attempted in the presence of a high retraction ring and a spastic uterus. The patient was brought into the hospital in collapse; one foot was down in the vagina, the head in the peritoneal cavity through a rent in the left wall of the uterus, the body within the uterus—lying in the opposite iliac fossa.

These two brow cases are placed in contrast, both were primipara with spastic uteri, in one version was attempted, and in the other the doctor flexed the head and succeeded in delivering with forceps; had he failed one of the major operations could have been done.

RUPTURED TUBAL PREGNANCY WITH NO AMENORRHEA.

DR. W. MADDREN reported this case, that of a

Hungarian woman, 26 years of age, who had had three children and no miscarriages. He saw her two or three days before the operation, and an examination revealed an enlargement on the right side and a certain amount of pain was complained of. She had been flowing since November 19. She menstruated on that date, and was four or five days menstruating and in full quantity. He saw her on December 13th for the first time. She was put to bed, and given some opium and a little ergot to see if he could control the flow by quiet and medication. The uterus did not feel as though she were pregnant or had had a miscarriage, and yet that was a possibility under the circumstances. The flow was not large but continued for a whole month. On Friday he saw her and made another examination, and was satisfied that there was something especially wrong. The next day he was summoned, and found that she was suffering with severe pain. There was a great change in the appearance of the woman. From being rather rosy she had become pallid, had fainted twice, and had evidently lost a good deal of blood. He inquired if there had been any external flow, and was told there had not been any. He made an examination and was able to detect fluid blood, as well as perhaps a little clotted blood, in Douglass's cul-de-sac. The pain had been very severe. He gave her  $\frac{1}{4}$  grain morphine hypodermatically, and felt sure that she had had a hemorrhage into the abdominal cavity, and presumed that the enlargement on the right side was an extra-uterine pregnancy. He called a consultation, and she was taken to the sanitarium and operated on that night. About four pints of fluid and clotted blood were found after opening the abdominal cavity. That was removed, and there was a ruptured tube on the right side a little unusual in character, the rupture instead of being near the uterus was very near the extremity of the Fallopian tube. The tube and ovary on that side were removed, and there was quite a little oozing from the point of attachment on the posterior surface of the broad ligament pretty well down in the upper part of Douglas's cul-de-sac. It was checked, the abdomen wiped out, the clots removed and the parts sewed up. She made an uneventful recovery.

The peculiar feature of the case was the unusual distance from the uterus of the site of rupture. The operation was done on the 16th. On the 18th she menstruated three days normally.

On October 22 she menstruated, in September



she menstruated twice, and August 28 she menstruated. There was no history of any skipped menstruation. The menstruations had been normal, and for that reason it was suspected that she might not be pregnant.

There was another reason why the patient thought she was not pregnant. She had been in the habit of introducing as soon after menstruation as she thought fit a pessary of aluminum with a disk fastened to the bottom of it for the purpose of preventing conception. That had been introduced promptly after menstruation and worn until menstruation came again, which she thought was a perfect safeguard against pregnancy. She was in the habit of introducing it without any douching or cleansing, and removed it with the finger only. She had no history of any septic or inflammatory trouble.

#### *Discussion.*

DR. W. B. CHASE said that Dr. Maddren has referred to the point of rupture as being pretty near the fimbriated extremity, and a point where it is unusual for rupture to take place. From his own observation, and so far as he recalled, statistics show the contrary. If you have a rupture of an impregnated tube, and it happens in the proximal portion, it is pretty likely to be extruded into the broad ligament, whereas if it happens in the distal extremity it escapes into the peritoneal cavity. His observation showed that extrusion takes place more frequently in the distal portion and the blood is in the free peritoneal cavity.

DR. J. O. POLAK stated that he was interested in hearing Dr. Brickner make a statement as to the treatment they were using at Mount Sinai for certain ectopics. It is generally admitted that 75 per cent. of ectopics are tubal abortions. They place these patients under observation, and they have had twenty odd cases that they have treated without operation at all, and they have formed a pretty clear clinical picture of what these cases of tubal abortion do. They present a history of discomfort in the side, followed by severe pain. The pain suddenly ceases, and if the shock is not severe the patient is not operated, and if the symptoms show no increase in hemorrhage in one to three hours, the case is left alone. These cases are examined and kept watch of from day to day. Dr. Brickner reported some twenty odd cases that have been diagnosed as tubal abortions that they have not operated upon, believing these hemorrhages are so slight they control themselves.

DR. L. G. BALDWIN said that we do not have to come down to such a recent date as the present

for an argument in favor of non-operative interference in tubal pregnancy. If one looked over the first edition of Emmet's work, one would see the history of a number of these cases in his sanitarium and the Woman's Hospital, but unfortunately they all died, and we looked on the matter of operation as a great advance.

In the discussion referred to by Dr. Polak, the speaker concluded that the consensus of opinion was quite the reverse to that expressed by Dr. Brickner. Personally, he did not believe that any of us would want any member of our family to go unoperated on with a real tubal pregnancy; he was sure he would not. He himself believed this was bad testimony to be spread abroad. Even if they do get well (those of us who have occasionally had a case that did well without operation) know how tedious the case is, and know how much better they get along with an operation, and none of us would be willing to admit more would get well without operation. Practically none die from the operative effects of the operation, so he did not believe the doctrine stated was good practice.

As to the situation of the rupture of the tube, it has been his experience that a majority of ruptures are certainly in the distal half of the tube anyhow. As to rupture in the broad ligament, he had never seen one really in the broad ligament. He sometimes doubted that they existed, but, of course, that was not so.

The speaker had never seen a case either where there was not some delayed menstruation. The case Dr. Maddren reported is the first one that came near his observation. He had put it down as an absolute rule, that there was always at least a delayed menstruation, but there probably he was wrong.

In regard to the pessary, he did not believe they are always as safe as in Dr. Maddren's case. It is only recently that he saw a woman about as sick as he ever saw one with a large pelvic abscess, which undoubtedly was the result of infection from this sort of pessary. He thought these women are certainly more expert than most of the doctors in inserting them. He did not think he could put one of them in without having the woman on the side and the uterus pulled down. He thought it remarkable how they succeeded in getting them into the cervix.

#### REPORT OF A CASE: TRANSVERSE PRESENTATION CONVERTED INTO OCCIPITO-POSTERIOR BY EXTERNAL VERSION DURING LABOR.

DR. CARROLL CHASE reported a case of a multipara thirty years old that he was called to at-

tend after she had been in labor eighteen hours. The woman was large and had a lax abdominal wall. General condition good, except that she was tired. The uterus contracted pretty well about the child with each pain. The position was transverse, an elbow presenting. Membranes unruptured. With the idea of giving the patient some needed rest before proceeding a grain of opium and ten grains of chloral were given. She promptly fell asleep. In about an hour, to his surprise, the uterus became thoroughly relaxed and he was able to convert the presentation into an occipito-posterior entirely by external manipulation. Under the influence of stimulants—strychnine, etc.—the woman delivered herself, without instrumental help, of a small living child. There was no excessive hemorrhage. The soft uterus and small child made this procedure possible. The case, as far as his experience goes, is unique.

#### CÆSAREAN SECTION IMMEDIATELY AFTER DEATH.

DR. WILLIAM P. POOL said that he would like to report a case which was interesting because it was rather rare—a post mortem Cæsarean operation. The patient, about at term, was brought to the hospital in a moribund condition, suffering from advanced heart disease. There were evidences of foetal life, and as there was no dilatation of the cervix, the Cæsarean operation was decided upon. There was just time to get the patient on the operating table when she died. He then rapidly opened the abdomen and uterus, and delivered a living child which survived.

#### PAPER: CYSTIC DEGENERATION OF THE CHORION. BY DR. A. ROSS MATHESON.

##### *Discussion.*

DR. O. A. GORDON said that some few years ago he presented a specimen of the character under consideration, which he removed from a primipara. She had the usual symptoms and course of a normal pregnancy up to about five and a half months, when uterine contractions set in with hemorrhage. A large cystic growth was removed, which proved to be a cystic degeneration of the chorion. She made an uneventful recovery, and about one year from that time she became pregnant again. She went on to about three and a half months when uterine contractions began and there was a dis-

charge of blood and small cysts. He again emptied the uterus. She made a good recovery and is now between six and seven months pregnant and the foetal heart can be heard. It seems to him that she is going to be successful this time. These are the only two cases he has ever seen, and both in the same patient.

DR. POOL asked Dr. Gordon if he had any knowledge of the possibilities of syphilis in the family.

Dr. Gordon replied that he was as positive as any one can be that there is not.

DR. POLAK asked Dr. Matheson if, in looking up the literature of this subject, he noticed that there was a tendency to recurrence in the same patient.

DR. MATHESON replied that one party reported eleven successive hydatid pregnancies.

DR. A. A. HUSSEY stated that he wanted to add his experience. He had seen one case of hydatid mole. He was called in by Dr. Kevin to help in such a case. The patient was a woman under 25. It was her first pregnancy, and she presented no abnormal symptoms. She was about three months pregnant when she was suddenly taken with a severe hemorrhage. The doctor was called and stopped the hemorrhage after tamponade. Two days later she was taken with another severe hemorrhage. At this time the cervix was found partly dilated, and some small cysts were extruded. The doctor made the diagnosis and asked the speaker to help him.

When he saw the case the woman was very weak from loss of blood, the cervix was dilated to admit two fingers, and the uterus was about as large as a four months' pregnancy. Under anesthesia he was able with the fingers to detach, to pull out a mass of cystic material about as large as a bunch of white grapes. He then went over the interior of the uterus with a dull curette and irrigated. The woman made a good recovery after a somewhat prolonged convalescence. She is now in good health. She has not been pregnant since.

DR. POLAK said that all the cases mentioned were curetted, and he was under the impression that digital curettage was the method that was given the preference.

DR. MATHESON said that he did not curette the uterus, but simply broke the masses down and removed them with a large curette.



# Brooklyn Medical Journal.

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Editor-in-Chief.

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## MEDICAL OFFICERS IN THE GENERAL STAFF OF THE WAR DEPARTMENT.

Conservatism in American military matters is characterized by nothing more emphatically than by the tardiness of the War Department in appointing medical men on the General Staff. There is but one medical officer on this staff at the present time, and he is about to be promoted out of it. Medical officers of the army are awake to the demands which will be thrown upon the medical department in every future actual warfare. This responsibility has been demonstrated beyond the peradventure of a doubt by the achievements of the Japanese.

At least a small number of the General Staff should be composed of those who regard as matters of the first importance those questions of military hygiene, sanitation, housing and food of the soldiers and such other matters as must play so important a place in the conduct of every future war. Army medical men believe that at least three or four medical officers should be comprised in the list of members of the General Staff, and that at least one representative should be appointed to the Ordnance, the Engineers, the Quartermaster's, the Judge Advocate's, and the Military Secretary's Departments.

The English War Office is profiting by the experience of the Japanese by appointing medical officials to all important departments of the army; and as the United States has been known to follow Great Britain's example closely on other

occasions in military matters, it may be expected that the needs of the army in respect to its medical equipment, may well be planned to follow similar lines.

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DR. CHARLES LOUIS FINCKE.

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The recent death of Doctor Charles Louis Fincke, who served in the capacity of Editor of the Pathological Society for the BROOKLYN MEDICAL JOURNAL, recently occurred under circumstances particularly regrettable.

At the time of his death, Dr. Fincke was fairly launched in the practice of his profession, in which he showed unusual promise. His enthusiasm for pathological investigation had earned for him honors thus early. Septicæmia, following an infected autopsy wound, culminated in an illness which unfortunately proved fatal. Such a termination of a career may be considered equally as honorable as death met by the surgeon on the field of battle. In an effort to secure advancement for the science to which he was devoted, to obtain mastery over death, death was encountered.

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## THE SUFFOLK COUNTY MEDICAL SOCIETY CENTENNIAL ANNIVERSARY.

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It is remarkable that the founding of the New York State, the New York County and the Suffolk County Medical Societies should all have taken place one hundred years ago this year. The centennial anniversaries of all of these societies falling due in the current year have consequently much in common in reviving interest in old-time medical affairs. The Suffolk County anniversary is happily planned to be held in conjunction with the regular summer meeting of the Associated Physicians of Long Island. It is planned by the Committee of Arrangements of these societies to present addresses of unusual interest, both medical and historical, at that meeting. Dr. Frank Overton, of Patchogue, the Secretary of the Suffolk County Medical Society is arranging to collect an exhibit of old-time instruments, relics, pictures and historical medical objects. The programme will be presented to the conjoined meeting to be held in early summer. Dr. Frank Overton will be pleased to communicate with the possessors of suitable material who would be willing to lend it for this temporary exhibition.

## AN EFFORT TO DETERMINE THE DISTRIBUTION OF THE ANOPHELES.

Following the recommendation made by Dr. Louis C. Ager in a paper entitled, "Some Problems to be Solved by the Practitioners," which was read before the Society at the February meeting, the President of the Society has appointed a committee to be known as "The Committee on Scientific Research." The following gentlemen have been designated to serve as members: Louis C. Ager, Chairman; Wm. C. Braislin, B. F. Knause, Harry Moak, Wm. H. Woglom.

The committee met and organized on March 20, and Wm. H. Woglom was appointed secretary. The problem which seemed to be most important, and with which the committee resolved first to concern itself, is the distribution of the Anopheles in the Borough of Brooklyn—with special reference to its hibernation. In order that the most complete information on this subject may be obtained, the co-operation of our profession throughout the city is necessary. Dr. B. F. Knause, of 1076 Bushwick Avenue, has volunteered to identify the specimens tendered. Brief notes should accompany insects sent for identification designating and describing the place where it was captured, and giving the date of such capture.

Dr. Knause has suggested as the best medium both for catching and transmitting the specimens the rubber-capped tubes in which iodoform gauze is packed for sale. A vessel with a fairly large mouth is necessary for the capture, in order that the insect may not be injured beyond recognition while the vessel is being placed over it.

The committee hopes to receive enough specimens to enable it to prepare a map showing the localities in which the Anopheles flourishes. The value to the practitioner of such a map need hardly to be stated.

WM. H. WOGLOM,  
*Secretary.*

### JOSEPH EDGAR WELLS, M.D.

To record the death of one who during his entire professional life was engaged in the practice of the healing art in that section of the city known as South Brooklyn, and where the writer had the pleasure of extending to him the right

hand of fellowship upon his entrance as one among us, it can be truly said, that after the years that have come and gone Dr. Wells has performed his part of the work with credit to himself and honor to the medical profession. He was born in New Brunswick, Canada, January 11, 1865, and died in Brooklyn, New York,



JOSEPH EDGAR WELLS, M.D.

February 26, 1906. His father was William A. Wells, of Canada, and his mother, Emma White, of Maine. His marriage occurred on April 6, 1891, to Miss Charlotte Bloor, of Brooklyn, New York. One child was born of this union, Marion Wells.

Dr. Wells' early education was obtained at Mount Allison University, Canada. The study of medicine was received under the direction of T. J. Trueman, M.D., of this city. He received the degree of M.D. from Jefferson Medical College in 1887. He was a member of the Medical Society, County of Kings, from 1893 to 1906; the Associated Physicians of Long Island, 1901 to 1905; Kings County Medical Association, and the American Medical Association.

WILLIAM SCHROEDER, M.D.,  
*Chairman of the Hist. Com.*



**JOHN OSCAR FERDINAND HILL, M.D.**

An upright citizen, a respected member of our profession, held in the highest esteem by the people in that section of the city in which he was engaged in the practice of medicine, has been called to end his life work among us. If the number of people that attended his funeral was an indication of the esteem in which the doctor was held by those who had the privilege of calling him physician or friend, then few of us can only hope for such a reward.

Dr. Hill was born in Boras-Vestergotland, Sweden, on December 11, 1863, and died at Stamford, Conn., February 27, 1906. His father was Ephraim Hill, and his mother, Christina Johnson, both of Sweden. He was married on June 3, 1890, to Miss Marietta Cole Williamson, of Gravesend, Long Island.

Dr. Hill received his early education in the public schools of this city and the Polytechnic Institute. His medical education was under the direction of William E. Spencer, M.D., graduating M.D. from the Long Island College Hospital in the Class of 1886. During his college years he was instructor in the New York Evening Schools. During his professional life he was Police Surgeon of Gravesend from 1887 to 1893;



JOHN OSCAR FERDINAND HILL, M.D.

Assistant Health Officer of Gravesend from 1888 to 1893; President of the Board of School Commissioners, Gravesend, 1891 to 1894; Postmaster of Coney Island, 1893 to 1896; Assistant Surgeon of the Long Island Railroad, Physician to the New York Children's Aid Society at Coney Island, and the Society for Improving the Condition of the Poor; a member of the Medical Society, County of Kings, from 1891 to 1906.

Dr. Hill was a member of Kedron Lodge, No. 803, F. and A. M., of which he was Master in 1894-95; Constellation Chapter, No. 209, R. A. M.; Clinton Commandery, No. 14, K. T.; Kismet Temple, A. A. O. N. M. S. and the Exempt Volunteer Firemen's Association of Gravesend. The funeral services were conducted at the Dutch Reformed Church, Gravesend.

WILLIAM SCHROEDER, M.D.,  
*Chairman of Hist. Com.*

**CHARLES LOUIS FINCKE, A.B., M.D.**

One of the younger members of our profession has been called upon to end his life-work. Dr. Fincke was born in the city of Brooklyn on May 29, 1873, and died in the same city on March 16, 1906. His father was Charles Louis Fincke, and his mother Clara Hutchinson, both of Brooklyn. In 1901 he was married to Miss Mattie Brown, daughter of Joseph E. Brown, of this city. Two children were born of this union.

Dr. Fincke received his early education at the Hill School, Pottstown, Pa., and the Polytechnic Institute, of Brooklyn, graduating A.B., from Yale University in 1896. His medical education was under the direction of Joshua M. Van Cott, M.D., receiving the degree of M.D. from the Long Island College Hospital in 1899, being the valedictorian of his class. This was followed by a term as interne at the Brooklyn Hospital. In 1900 he engaged in private practice in this city, remaining until his death.

During his professional life he has held the position of Physician to the Long Island College Hospital Dispensary, 1901-06; Assistant to the Chair of Pathology and Bacteriology, 1901-03, and Assistant Pathologist at the Long Island College Hospital, 1901-06.

He was a member of the Medical Society of the County of Kings, 1901-06; Brooklyn Pathological Society, and the First Presbyterian Church of Brooklyn.

WILLIAM SCHROEDER, M.D.,  
*Chairman Hist. Committee.*

# RESOLUTIONS ON THE DEATH OF DR. GEORGE R. FOWLER.

At a meeting of the Medical and Surgical Staff of the German Hospital, of Brooklyn, N. Y., held February 7, 1906, the following minute was adopted:

*Whereas*, Death has removed from our number George Ryerson Fowler, M.D., Chief of the First Surgical Division, his colleagues of the Surgical and Medical Staff desire to place on record their appreciation of his character and services.

Dr. George Ryerson Fowler, by the nobility of his character, the generosity of his nature, the energy of his disposition, the wideness of his sympathies, the thoroughness and depth of his attainments, had won the respect and affection of all his colleagues and had impressed his individuality upon the professional work of the German Hospital.

Early in the history of the hospital his counsel was sought. In all the plans and later organization of the hospital his experience was relied upon. He was the first surgeon appointed, and continued in that capacity until his final illness, and by reason of his skill and of his judgment and his great surgical attainments, contributed in a pre-eminent degree to the reputation and success of the German Hospital. As Chairman of the Executive Committee, he devoted much time and labor to the internal administration of the institution, and from his experience the hospital profited greatly.

This Medical and Surgical Staff find it impossible to express adequately their regret at his loss and they tender to his family their profound sympathy.

# RESOLUTIONS ON THE DEATH OF DR. GEORGE R. FOWLER.

At the regular meeting of the Staff Association of the Brooklyn Central Dispensary, held on February 7, 1906, the following preamble and resolutions were unanimously adopted:

## IN MEMORIAM.

*Whereas*, There has been taken from us Doctor George Ryerson Fowler; and

*Whereas*, Doctor Fowler was beloved by all of us, both for his energetic work carried on among us for years, and for the sterling manhood he at all times displayed; therefore be it

*Resolved*, That we, who labored with him in the Brooklyn Central Dispensary, recognize in his sad and untimely death an affliction to ourselves and a loss to the art of medicine and surgery; be it also

*Resolved*, That we are mindful of his kinsfolk and do condole with them in their bereavement; and be it further

*Resolved*, That in recognition of the death of our co-worker, whose zeal, labor and self-denial to attain pre-eminence in his life work will perpetuate in our hearts a loyal, loving memory, these resolutions having been spread upon the records of the Staff Association of the Brooklyn Central Dispensary, be transcribed to copy and presented to the family of the deceased and to the BROOKLYN MEDICAL JOURNAL for publication.

Signed:

D. F. LUCAS, M.D.,

President.

J. J. WAGNER, M.D.,

Vice-President.

# RESOLUTIONS ON THE DEATH OF DR. GEORGE R. FOWLER.

*Whereas*, By the death of our eminent fellow-member George Ryerson Fowler, The Brooklyn Pathological Society has suffered a grievous loss; and

*Whereas*, His surgical work among us has been prosecuted scientifically and in accordance with the latest and most advanced pathologic discoveries; and,

*Whereas*, We, his friends and admirers, recalling his marvellous achievements, his untiring energy, his hearty fraternalism for his professional associates, and his generous Christian spirit toward all mankind, feel that our loss is a peculiar and irreparable one; be it

*Resolved*, That we offer to his family our deepest sympathy in their bereavement and the assurance that we shall ever prize the memories with which we associate his wonderful personality; and be it

*Resolved*, That these resolutions be spread upon the minutes of this Society and published with its proceedings."

Signed:

C. H. GOODRICH,

W. S. HUBBARD,

W. H. BIGGAM,

Committee.



**IN MEMORIAM, CHARLES LOUIS FINCKE, M.D.**

The Chiefs of Clinic of the Staff of the Dispensary of the Long Island College Hospital, at a special meeting, held on March 28, 1906, adopted the following minute:

On behalf of the members of this Staff we desire to convey to Mrs. Fincke our heartfelt sympathy in her bereavement, and to express our own deep sorrow for the loss of so beloved a fellow-worker.

As associates of Charles Louis Fincke during the past five years, it has been our privilege to know and to prize his staunch and loyal friendship, and to witness and value his untiring and unselfish devotion to his professional duties.

His character commanded our respect and esteem, his scientific merit called forth our admiration, and his personality won our affectionate regard.

In our memory he shall be cherished as a true man, whose life was and will be an inspiration to uplift and better the lives of other men.

HENRY MITCHELL SMITH,  
Secretary.

**MEDICAL NEWS.**

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Henry R. Price announces his removal to 435 Clinton Avenue.

Dr. E. E. Cornwall will remove to 1239 Pacific Street on May 1st.

Dr. Norman P. Geis will remove to 1325 Pacific Street about May 1st.

It is with deep regret that we chronicle the death, on March 19, 1906, of Dr. Charles Louis Fincke, of 166 Clinton Street, from septicæmia, following an infected autopsy wound. The news of his death was a distinct shock to his friends and professional confreres alike. As one of the younger members of the profession he was fast making a deserved reputation as a pathologist, and was earning the promise of a brilliant future.

His death is another instance of the ever-present danger in autopsies, and a warning that eternal vigilance ought never to be relaxed. Dr. Fincke was graduated from Yale, received his medical degree from L. I. C. H., another hospital training at the Brooklyn Hospital, and at the time of his death was associate visiting physician to the Brooklyn Hospital, assistant pathologist to the L. I. C. H., and instructor in the principles of medicine in the College. He leaves a host of friends, who mourn his untimely demise. A widow and two children survive him. The JOURNAL extends its sincerest sympathy to the bereaved family.

At the last meeting of the Regents of the Long Island College Hospital, Messrs. Daniel Barnes and Howard Maxwell, and Dr. John F. Harrigan were elected Regents.

Through an error, credit was not allowed Dr. Louis C. Ager, as author of the Comparative Mortality Tables of Typhoid and Whooping Cough, published in this column in the February issue.

At the annual dinner of the Association of the Ex-Internes of the Long Island College Hospital, at the Clarendon Hotel, March 17th, the following officers were elected for the ensuing year: President, William P. Pool; Vice-President, John O. Polak; Secretary and Treasurer, Clarence R. Hyde; Executive Committee, Joseph Merzbach, Frank Clark and Frank E. West. The Association decided to hold a scientific meeting next Fall at the house of some one member.

At the March conference of the Interne Anesthetists of the Brooklyn Hospitals, held at the Seney Hospitals, the subject for the evening's discussion was "Charts and Keeping the Record of the Anesthesia."

Dr. John W. Brannan, president of the board of trustees of Bellevue Hospital, has issued an order that two of the wards in the medical divisions are to be used hereafter for tuberculosis patients. Dr. Brannan issued this order after he had been informed by Charities Commissioner Hebbard that no more consumptives could be received on Blackwell's Island.

Peter Wyckoff, who is known in the Eastern District, as the "Millionaire Farmer of Williamsburg," has given the German Hospital on St. Nicholas Avenue, \$10,000, absolutely without stipulation, but with the suggestion that it be applied to the best needs of the institution.

Mr. Wyckoff's charities are well known in the Eastern District, for only a fortnight ago he sent \$10,000 to each of five organizations in that dis-

trict: Eastern District, Y. M. C. A., Homeopathic Hospital and Dispensary, Eastern District Hospital, Industrial Home and Graham Home.

Two bills, affecting patent or proprietary medicines, have been introduced by Mr. Thompson, of the 8th District in Kings. One amends the public health law by requiring a formula of a patent or a proprietary medicine to be printed on the label, and making a violation of this provision a misdemeanor.

The other provides that "no practicing physician shall prescribe to any patient, by Latin prescription or otherwise than by its true name any drug, medicine or mixture commonly known as a patent or proprietary medicine. Violation of this provision is made a misdemeanor."

A bill by Mr. O'Neill requires the name of all manufacturers of different brands of food to have their name plainly marked on the package.

The ambulance of the Nassau Hospital, Mineola, was completely wrecked, on February 28th, by coming into contact with a bridge, the horses having been frightened by the glare of an automobile's searchlights. Both the driver, and Dr. Schrich, the ambulance surgeon, were thrown out and considerably bruised. Two others were knocked down by the team, which ran away, dragging part of the ambulance behind them.

The Lederle Laboratories, of Manhattan, meet a long-felt want in establishing private disinfection. Their laboratories are now equipped for this work, and will undertake disinfection of private houses, apartments and hotels, in city or country, on short notice. The work will be done by skilled operators, using bacteriological control tests and other approved methods. Certificates of disinfection will be furnished to the medical adviser, and to the Department of Health, upon completion of the work.

On March 10th a bill was introduced by Representative Gregory in the Iowa Legislature, requiring physicians to take human life in cases in which there is great suffering and death is certain to result, and also to prevent the rearing of children who are hideously deformed or hopelessly idiotic.

Representative Gregory is a physician himself and introduced the bill in all seriousness.

The bill provides a heavy fine for any physician who shirks his duty under this law, and also prescribes the usual penalty for first degree murder should they abuse the law.

Dr. Robert H. Herkimer, of Adelphi, Chief of the Bureau of Contagious Diseases, has had to

go South for his health. He is at present at Palm Beach.

Medical Director Grove S. Beardsley, U. S. N., retired, died in Atlantic City recently. He was born on January 22, 1838, in Verona, Oneida County, N. Y., and was appointed to the naval service on July 1, 1861, as an Assistant Surgeon. He became Medical Director in January, 1891, and was transferred to the retired list in January, 1900.

Dr. Frank J. Freel, a son of the late Edward Freel, the millionaire contractor of Brooklyn, died of pneumonia at his home at Stony Creek, Conn., in his forty-eighth year. He was a graduate of the Long Island College Hospital, but never engaged in active professional work. For several years he had made his home at Stony Creek. He was unmarried.

Dr. Charles Augustus Lindsley, founder of the Connecticut State Board of Health, and for twenty years its secretary and head, died at his home in New Haven. Heart disease, which he had made a life study, caused his death. He was born in Orange, N. Y., August 19, 1826, and graduated from Trinity College in 1849. After studying at the College of Physicians and Surgeons in New York he took his degree from the Yale medical school three years later. In 1860 he was made professor of materia medica and therapeutics at the Yale medical school, and still retained his connection with the school at the time of his death. He was responsible for the formation of the State Board of Health through legislative enactment in 1874 and had given a large part of his time for the last quarter of a century to the work of that organization. Through his efforts town records have been much enlarged and systemized and health officers have been forced to keep accurate death and birth records. During five typhoid fever epidemics in Connecticut he worked until he was able to trace the cause of the contagion.

At a meeting of the Academy of Medicine to discuss hospital reform Dr. W. Gilman Thompson said that while continuity in staff surgeons is advisable, frequent change in the medical staff would promote the education of physicians, and would result in no detriment to patients. He questioned whether what he termed the "monopoly" of hospital surgery should be continued. Then he ridiculed the overdoing of clinical laboratory methods and the "overtrained" nurse. The average hospital ward he characterized as a picture of neatness and discomfort, with the window shades all at an equal height, though the light



might shine into some patient's sore eyes, with the tables all on the same side of the bed, though some patient might be paralyzed on that side, and with uniform temperature for all cases.

Assemblyman De Groot declares the loose talk concerning the putting to death of old people and incurables is distinctly painful, and has introduced a bill amending the Penal Code so as to make it a felony. His idea is that this propaganda is lessening the sanctity of human life. The measure amends the section of the penal code as to the propagation of certain doctrines by adding a new section as follows:

"Advocacy of assassination of invalids. Any person who, by word of mouth, or by written or printed circulars, messages, letters, documents, pamphlets, newspaper or magazine articles or publication of any kind, made, issued or circulated by him or by his authority, advocates or teaches the duty, necessity or propriety of putting to death by legal sanction or otherwise, persons afflicted with incurable mental or physical disease because of their said condition, is guilty of a felony."

Insane persons are on the increase in this State, according to the annual report of the State Commission in Lunacy submitted to the Legislature. In 1892 there was one insane person to every 377 people in the community. Now the ratio is one to every 299. A similar increase is reported by the lunacy commissioners of Great Britain. The State commission considers this condition a grave one, but finds some slight satisfaction from statistics, which show that the number of new cases last year was smaller than the year previous. There are 27,406 insane in the public and private institutions of the State and there are 6,000 insane persons being maintained in their homes.

At a meeting of the Board of Coroners of the Borough of Manhattan, the following resolutions were unanimously adopted:

"Whereas, It has come to the notice of the Board of Coroners of the Borough of Manhattan that Mrs. Jeanne Cheno, of 142 West Thirtieth Street, died in an ambulance of the New York Hospital while being taken to Bellevue Hospital; and

"Whereas, The Board of Coroners of the Borough of Manhattan emphatically protest against the inhuman action of the superintendents of certain hospitals in the borough, in removing patients who are in a dying condition to Bellevue and other charitable institutions, and as we are informed that this pernicious practice is done for

the purpose of keeping down the death rate of these institutions; therefore

"Be it Resolved, That this is in violation of all principles of justice and humanity, and meets with our disapproval. That we not only object, but protest, and ask that all of the persons in charge of hospitals take measures at once, and instruct the physicians in charge of patients not to remove them to other hospitals when conditions are such as to endanger the lives of the patients.

"It is further resolved that if this matter is disregarded, this board will take stringent measures to bring the violators to justice."

The Bay Ridge Hospital Association has elected the following directors: Irving T. Bush, Walter L. Durack, John Beet, Michael Murphy, Daniel B. Seaver, Dr. George Chaffee, William A. Doyle and Cornelius Fergusson.

The Hartford, Conn., Medical Society has received a legacy of \$100,000, through the will of a prominent Connecticut physician, Dr. Bacon. The money will be used as an endowment fund.

The Bensonhurst Sanitarium, Cropsey Avenue and Bay Thirty-third Street, opened its doors to the public on Wednesday, March 21st. The building will accommodate about fifty patients. Dr. Earl H. Mayne, of Bath Beach, is medical director.

Orders have been issued by Postmaster-General Cortelyou instructing the postmasters in New York and Brooklyn to refuse to admit to mails the advertisements of fifty-two illegal "medical offices" in those cities, and also to refuse to deliver mail matter received addressed to the fictitious and assumed names under which men conducting these concerns hide their identity. For a long time past the department has had inspectors working in New York gathering the necessary evidence to close the mails in these cases, and the officials of the department to-day expressed the belief that practically all of the criminal concerns of this character in these cities have been covered.

This action at New York and Brooklyn is in line with the efforts previously made by Postmaster-General Cortelyou in Boston and Philadelphia to enforce the law against this class of criminal concerns. In Boston thirty of these concerns were recently barred from the mails, and the Government's crusade in Philadelphia last September resulted in closing thirteen establishments charged with being illegal "medical offices," thus practically clos-

ing all such concerns there. A statement given out at the Post Offices Department to-day says:

"The condition of affairs which has developed under the department's investigations in all of these cities has been appalling. It was found that in a large number of instances those engaged in conducting these offices have criminal records and are 'dope fiends.' In Boston one of the concerns excluded by the department from the mails was supposed to have been the office at which was performed the fatal operation upon the young woman, Susan Geary, victim of the suitcase 'murder.' One of the 'doctors' whom the department found identified with several of these 'offices' in Boston was also connected with the Susan Geary case. The number of deaths that have been caused in these offices can never be known.

"The volume of business done by these concerns was large. It was said the income sometimes ranged as high as \$2,000 a week an office."

The following letter from the Committee on the Prevention of Tuberculosis of the Brooklyn Bureau of Charities has been received.

The Brooklyn Dispensary, at 11 Tillary Street, has opened a clinic for tuberculosis patients and the Dispensary of the Williamsburg Hospital, at South Third Street and Bedford Avenue, will open one on April 2nd. The hours at the Brooklyn Dispensary are from 2 to 4 P. M. every day except Sunday; at the Williamsburg Dispensary, from 9 to 11 A. M., Monday, Wednesday and Friday.

These dispensaries will report to the Bureau of Charities the names of all tuberculosis patients needing a diet of milk and eggs, which they are not able to secure, and the Bureau will undertake to see that such diet is supplied.

You are earnestly requested to refer to one or the other of these dispensaries, all tuberculosis patients coming to your notice who are unable to employ physicians; or if for any reason the patients cannot come to one of these dispensaries, will you please notify the Central Office of the Bureau of Charities, at 69 Schermerhorn Street, and a visiting nurse will be sent.

Signed by JOSEPH H. RAYMOND, *Chairman*;  
WILLIAM I. NICHOLS, *Secretary*.

The Centennial Celebration of the Medical Society of the County of New York was held at the Hotel Astor, on April 4. This was the date of the year 1806 on which the law under which

the society is now incorporated was passed by the Legislature. This law is entitled "An Act to Incorporate Medical Societies for the Purpose of Regulating the Practice of Physic and Surgery in this State." The first actual meeting of the society was held on November 14, 1794, being then known as the Medical Society of the State of New York. The toasts responded to at the dinner were: "The Medical Society of the County of New York," Dr. Wm. M. Polk; "The Medical Society and its Responsibilities to the City," Hon. J. J. Delany; "The Church and the Medical Profession," Rev. Dr. C. P. Fagnani; "Law and Medicine," Hon. Job E. Hedges; "The Medical Society of the State of New York and its Relations to the State and Country," Dr. Ward, of Albany. Among the members present from Kings County were, Drs. Bierwirth, Bristow, Browning, Campbell and Warbasse.

## BOOK REVIEWS.

ATLAS AND EPITOME OF GENERAL PATHOLOGICAL HISTOLOGY. By Dr. Hermann Dürck, of the Pathological Institute of Munich. Authorized translation from the German. Edited by Prof. Ludwig Hekstoën, Rush Medical College, Chicago. Philadelphia, W. B. Saunders & Co., 1904.

This is an indexed volume of 371 pages, including a table of contents, eighty exquisite chromolithograph plates, and thirty-six figures.

The treatment of the subject is simple and at the same time scientifically exact. It covers well the field of general pathological histology in the context; and the plates so closely resemble stained sections of diseased tissue as to almost take the place of the actual material, and greatly facilitate the work of the student or busy practitioner, who cannot afford the time for technical work in the laboratory.

No modern physician should be without this book, which is one of the best of the recent products of German thought in medicine.

The American translation needs no further endorsement than the fact of its having been edited by Prof. Hekstoën, whose literary achievements are well known both here and abroad, and whose wide range of knowledge upon the subject treated renders him eminently fitted for such a task. It is a pleasure to recommend a book so replete with valuable facts, and so free from superfluous matter.

JOSHUA M. VAN COTT.

PHYSIOLOGY, PATHOLOGY, BACTERIOLOGY, DICTIONARY.

Vol. IX of the Practical Medicine Series of Year Books. W. A. Evans, M.S., M.D., Adolph Gehrmann, M.D., William Healy, A.B., M.D. Chicago, 1904.

This is an octavo of 228 pages, with table of contents and index. It comprises a review of various recent additions to our knowledge of the subjects enumerated, together with many new methods in laboratory and diagnostic work.

For purposes of reference it is of value, and cannot fail to interest physicians who desire to keep abreast of this period of rapid advance in every department of scientific medicine: while to those interested in the practical details of laboratory work it must find a place, as it contains many formulae, and directions for procedure in special methods in concise form.

From a popular view-point this book will help many who seek information upon lines which interest them, and who cannot command the larger, more costly works upon these subjects.

JOHN M. VAN COTT.



# BROOKLYN MEDICAL JOURNAL

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No 5.

## ORIGINAL ARTICLES.

### HONORS THAT HAVE COME TO THE MEDICAL PROFESSION IN AMERICA.

BY WILLIAM SCHROEDER, M.D.,

Chairman of the Historical Committee of the Medical Society  
County of Kings, and the Brooklyn Medical Society;  
Member of the Historical Committee of the  
Associated Physicians of Long Island.

To receive encouragement, and to have a desire to complete a given work, is all that one requires. The writer has received the former, and nature has provided the latter. There has been a number of medals struck in honor of men in the medical profession in America and those herewith presented are in the writer's collection.

Elisha Kent Kane, M.D., The Great Arctic Navigator, U. S. N. This is a masonic medal, having on its reverse side various masonic emblems. The other Dr. E. K. Kane medal has the following inscription on its reverse side, "Born in Philadelphia, Pa., February 3, 1822. Commander of the Grinnell Arctic Expedition, May 30, 1853. Died February 14, 1857."

Valentine Mott Medal: an inscription on the reverse side, "University of New York, Medical Department."

Ward Nicholas Boylston Medal: This has only an obverse inscription, "W. N. Boylston, Scholæ Medicinæ Fundator."

Benjamin Thompson, or Count Rumford Medal: an inscription on its reverse side, "Rumford Medal for Discoveries in Light or Heat, Awarded by the American Academy of Arts and Sciences."

Benjamin Rush Medal: On the reverse side is a river flowing, the background a setting sun, clouds, mountains and large trees, an inscription, "Sydenham, Read, Think, Observe. A. MDCCCVIII."

Battle of Bunker Hill Medal: Death of Dr. Joseph Warren. This on the reverse side shows the monument of Bunker Hill and the following inscription, "Centennial Anniversary, June 17, 1875."

David Hosack, M.D., Medal: A reverse inscription, "Arts and Science. Jenner Medal of The Medical Society, County of Kings."

There has been a number of other medals struck in honor of medical men in America of which the following is a list as nearly complete as I have been able to collect:

Louis Agassiz, M.D.. Ph.D., LL.D.

Nathan Smith-Davies, A.M., M.D., LL.D.—  
American Medical Association, 1846.

Daniel Garrison Brinton, A.M., M.D., Sc.D., LL.D.



MEDICAL MEDALS

William Henry Dudley, M.D. Two medals.  
L. I. C. H.

Elisha Kent Kane, M.D., Medal for Natural Science.

Joseph Pancoast, M. D.

Benjamin Rush, M.D., LL.D. Two medals of Rush.

Friedrich von Schiller, M.D., 1859, New York.

Jacob Bigelow, A.M., M.D., LL.D.: In January, 1873, when Dr. Bigelow retired as President of Mount Auburn Cemetery, the trustees were instructed to procure a suitable testimonial



JACOB BIGELOW, A.M., M.D., LL.D.

in his honor. A marble bust was decided upon. It is now in the Chapel of Mount Auburn, the sculptor being Mr. Henry Dexter.

William Beaumont, M.D.: A monument was erected in memory of William Beaumont, M.D., by the Michigan State Medical Society and the Upper Peninsular Medical Society, at Mackinac Island, Mich., July 10, 1900. The monument bears the following inscription:

Near this spot  
Doctor William Beaumont,  
U. S. A.  
Made those experiments upon  
Alexis St. Martin  
Which Brought Fame to Himself  
And Honor To American Medicine.  
Erected By The U. P. and Michigan State  
Medical Society, July 10, 1900.

William Beaumont was born November 21, 1785, at Lebanon, Connecticut, and died April 25,

1853, in St. Louis, Missouri. He studied medicine under Doctors Seth Pomeroy and Benjamin Chandler, of Vermont, and was licensed to practice by the Third Medical Society of Vermont. Columbian University of Washington, D.C., conferred upon him the honorary degree of M.D. in 1833. He held the position of Surgeon's Mate in the Sixth Regiment Infantry from December 2, 1812, to June 3, 1815; Post Surgeon, December 4, 1819; Assistant Surgeon, March 2, 1821; Surgeon, November 6, 1826; Resigned December 31, 1839. Beaumont Hospital Medical College, of St. Louis, Mo., and Beaumont Street are named in his honor.

Alexis Saint Martin was wounded on the sixth day of June, 1822, an aperture being left into the stomach. He died on the twenty-fourth day of June, 1880. Doctor Beaumont's experiments on digestion were made from 1825 to 1833. His book, "Experiments and Observations on the Gastric Juice, and the Physiology of Digestion," was published in 1833; the second edition in



BEAUMONT MONUMENT

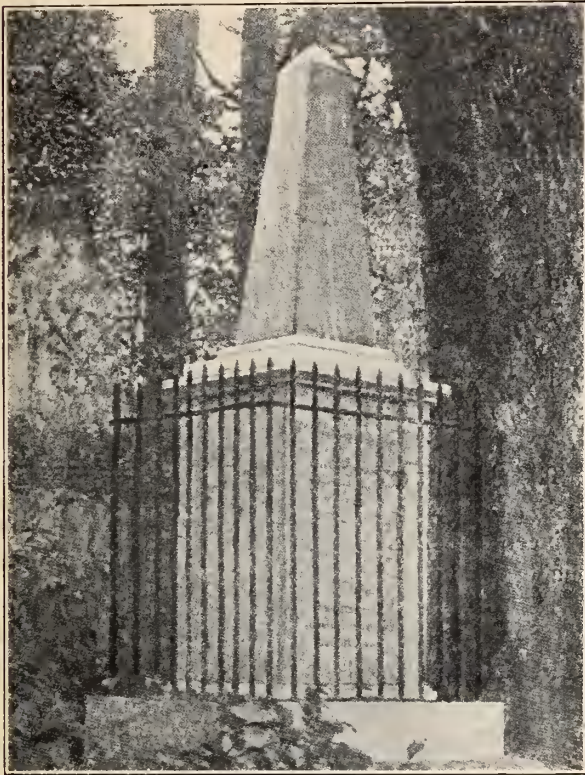
1847; German edition in 1834 and it was published in Scotland in 1838.

Dr. Beaumont was President of the Missouri Medical Society in 1841.

The above data are taken from the published



reports in *The Physician and Surgeon* for December, 1900 and 1902, and from Dr. John Read Bailey's "History of Mackinac," 1904



JOSEPH RODMAN DRAKE, M.D.



DR. HUGH MERCER'S MONUMENT.

Joseph Rodman Drake, M.D.: The monument erected to this well-known physician and author is at what is known as "Hunt's Point Road" in the upper part of New York City, and is called the Hunt Burying Ground. The monument bears the following inscription:

Sacred  
To the Memory of  
Joseph R. Drake, M.D.,  
Who died September 21, 1820.  
Age 25 years.  
None knew him but to love him,  
None named him but to praise.



ASA GRAY, A.M., M.D., LL.D., Sc.D., D.C.L.

Beneath this legend is another, in Roman letters, which states that the monument was "Renovated" by a literary union in 1891.

Joseph Rodman Drake received the degree of M.D. from Queens College Medical Department, New York City, in 1816.

Asa Gray, M.D., Sc.D., LL.D., D.C.L.: The bronze medallion portrait herewith presented is the work of the well-known sculptor, St. Gaudens. It was presented to Harvard University in 1884.

Oliver Wendell Holmes, A.M., M.D., Litt.D., LL.D., D.C.L.: The bronze bust of Doctor Holmes is by the sculptor Richard Brooks and is in the Boston Public Library. In what is known



OLIVER WENDELL HOLMES, A.M., M.D., LL.D.,  
Litt.D., D.C.L.

as the Berkshires, in a small place near Pittsfield, Mass., we find Holmesdale, named in honor of our distinguished physician and author.

Hugh Mercer: This physician and soldier rendered distinguished service to the land of his adoption, until his death from wounds received at the Battle of Princeton, in 1777. It was the intention of Congress to erect a monument to his memory which was to bear the following inscription:

Sacred to the Memory of  
Hugh Mercer,

Brigadier General of the Army of the  
United States.

He died January 12, 1777,  
of the wounds he received on the third of the  
same month, near Princeton in New Jersey,  
Bravely defending the liberties of America.

The Congress of the United States, in testimony  
of his virtues and their gratitude, have  
caused this monument to be erected,  
And that his youngest son should be educated  
at the expense of the Republic.

Continental Congress, April 5, 1777.  
This monument is still to be erected.

Dr. Hugh Mercer received a medal of honor  
from the Corporation of Philadelphia for his  
courage and meritorious conduct in the expedi-  
tion against the Indian Settlement of Kittaning.

The monument erected in memory of Dr.  
Hugh Mercer is of marble, and situated in Laurel  
Hill Cemetery, Penn. At its dedication, Neven-  
ber 26, 1840, William B. Reed, Esq., pronounced  
a eulogium.

The States of New Jersey and Kentucky have  
each named a county in honor of Mercer, and  
Princeton College has honored him by naming  
one of its halls Mercer Hall.

The publication of Alfred M. Hestron's ad-  
dress before the Monmouth County, N. J., His-  
torical Association on July 26, 1900, the subject  
being the "Defense of Fort Mercer," has added  
additional interest to the name of Mercer.

Ephraim McDowell, M.D.: The monument  
erected to the memory of McDowell by the Ken-  
tucky State Medical Society, in 1879, is situated  
in a public park in the city of Danville, Ky. On  
the front face of the monument is a medallion  
of McDowell, and beneath it a tablet bearing  
the following inscription:

"A Grateful Profession Reveres His Memory  
And Treasures His Examples."

On the remaining tablets on different sides  
the further inscription reads as follows:

"Beneath this Shaft Rests the Remains of  
Ephraim McDowell, M.D.,  
The Father of Ovariectomy."

"By Originating a Great Surgical Operation,  
He Became a Benefactor of His Race,  
Known and Honored throughout  
The Civilized World."

"Born in Rockbridge County, Virginia,  
November 11, 1771.

Attended the University of Edinburg, 1793-4.

Located at Danville, Kentucky, in 1795.

Performed the First Ovariectomy in December,  
1809."



William Pepper, A.M., M.D., LL.D.: The bust of Dr. Pepper here pictured is in plaster, and was presented to the University of Pennsylvania on his retirement as provost, June 7, 1894. In the Pepper Clinical Laboratory connected with the University is a marble bust of Dr. William Pepper.

Friedrich von Schiller, M.D.: A surgeon by profession, a poet by nature. In the writer's pos-



WILLIAM PEPPER, A.M., M.D., LL.D.



EPHRAIM McDOWELL, M.D.

session are several engravings of monuments erected in honor of Schiller in the German Empire, which indicate that they are grand, indeed. In Central Park, New York City, is a bronze bust of Schiller, erected on a sand-stone pedestal. A photo-engraving of the same is here presented.

John Collins Warren, A.M., M.D.: A marble bust of Dr. Warren was presented in 1838 to



FRIEDRICH VON SCHILLER, M.D.

Harvard Medical College and placed in the lecture room. The sculptor was Horatio Gree-



JOHN C. WARREN, M.D.

nough. The engraving shows a very good view of the bust.

#### ARE TUBERCULOSIS CLINICS DANGEROUS TO THE PUBLIC HEALTH?

BY J. H. RAYMOND, M.D.

The singular and anomalous spectacle was presented in Brooklyn a few weeks ago of the Supreme Court enjoining the Board of Health of the City of New York from establishing a special tuberculosis clinic, on the ground of danger to the public health. It was a surprise to all familiar with the history of tuberculosis and the pioneer position occupied by this board in the prevention of this disease that such action should be taken by a layman, notwithstanding the opinions of the President of the Board of Health, Dr. Darlington, of the medical officer, Dr. Biggs, and of some of the most prominent Brooklyn physicians that such a clinic was not only not a menace to the public health, but was, on the contrary, one of the most efficient agents in its protection. The question involved was

essentially that of the danger of infection from the sputum deposited in the street by consumptive patients visiting the clinic. As this subject was a new one, the Chairman of the Committee on the Prevention of Tuberculosis of the Brooklyn Bureau of Charities deemed it wise to obtain as far as possible the views of those who had had experience in tuberculosis work in connection with clinics, and for this purpose sent the following letter to each of the twenty special dispensaries for tuberculosis in the United States, situated in Baltimore, Boston, Chicago, Cleveland, Minneapolis, New Haven, New York, Orange, Philadelphia, Providence, Scranton, Washington and Worcester; it was also sent to Montreal, Canada, where there is a special dispensary:

BROOKLYN, April 10, 1906.

TO THE SUPERINTENDENT:

*Dear Sir*—An attempt has been made to establish a tuberculosis clinic in Brooklyn, the opening of which has been enjoined by the Supreme Court. The ground of complaint is that the aggregation of consumptive patients visiting the clinic would result in the deposition on the public streets of so much infected sputum as to endanger the health of the residents of the vicinity, by reason of the drying of this sputum and its transportation by means of the street dust; that this dust would be inhaled or deposited on meat or other food in neighboring stores, and thus tuberculosis would be contracted. It is also claimed by objectors to the clinic that no amount of instruction or education will prevent the consumptives who visit such clinics from expectorating on the public streets in their vicinity.

Will you kindly give me your views as to the danger to the public health from such street dust, and the experience of your clinic as to the practice of expectorating on the streets in the neighborhood of the clinic. Also inform me whether your clinic is in a populous section or not and whether any complaints have been made by residents or any official action taken against its establishment or maintenance. As early a reply as possible will be appreciated. Should you have a photograph of your clinic I should like it. I am, very truly,

JOSEPH H. RAYMOND, M.D.,

*Chairman of Committee.*

In response to this letter the following replies have been received, which are published without comment and without alteration, in order that



our readers may form their own opinions as to the danger from tuberculosis clinics:

SCRANTON, PA., April 11, 1906.

Your circular of the 10th is received. I am sorry that I can not give you any information from my own personal observation on your question, as our dispensary was only a temporary affair and used only until our sanatorium was established and it never had a very large attendance so that the neighbors never raised any objections.

Of course, there is no possibility that such an institution could do any real harm to any neighborhood, but on the other hand the educational influences of it would do a great deal of good to any community. However, I have found out that it is no use stating facts to people who object to such work.

Their trouble is a deficient cerebral activity which has been working for several generations and can not, of course, be cured. The only thing to do is to fight them to a finish if possible and in this I hope you will be successful.

Yours very truly,

J. M. WAINWRIGHT,  
*Sec.-Treas.*

NEW YORK, April 11, 1906.

In reply to your inquiry of April 10th relative to the establishment of a tuberculosis clinic, I would state that at the Out Patient Department of Bellevue Hospital and at Gouverneur and Harlem Hospitals—allied hospitals of this department—there are tuberculosis clinics, and in connection with the clinical work we have a system of visiting nursing.

There is always danger to public health from street dust, but it has not been the experience of the hospitals of this department that there is any increased expectorating on the street in the neighborhood of our Out Patient Departments, nor any increased prevalence of the disease in the vicinity of the hospital. On the contrary, the teaching and instruction that are given to all who have tuberculosis and who are treated at the clinics is such that it is very unlikely that they will expectorate in the streets or elsewhere, so that an Out Patient Department in this respect is likely to be of great value in educating a community.

All the Out Patient Departments referred to have been in populous sections of New York City, and no complaints have been made by residents to necessitate any official action rela-

tive to the maintenance of an Out Patient Department in which those affected with tuberculosis are to be treated. Hoping that this gives you the information you desire, I am,

Very truly yours,

S. T. ARMSTRONG,  
*General Medical Supt.*

BALTIMORE, April 11, 1906.

Your letter of the 10th inst. is received. Our Phipps Dispensary is conducted as a branch of the General Dispensary connected with this Hospital, and its intention is to prevent the very danger of which you speak. It was thought unwise to have tuberculous patients occupying seats in connection with other patients and possibly spitting promiscuously, without special attention to the health of other patients. It seemed to us much wiser to take such patients into a special dispensary where every precaution could be exercised to secure a proper disposition of the sputa. It also seemed in the interest of the community that such patients should be carefully, daily and systematically instructed as to the proper disposition of all sputum. Personally, I believe that the possibilities of infection in this neighborhood from tuberculous sputum, instead of being increased, are diminished by the careful instruction which is given to all tubercular patients as to the avoidance of spitting in the streets and public places. Our clinic is in rather a thickly populated region of the city and one where there has been a very large amount of tuberculous disease. Our streets are broad, and the open spaces are well exposed to the sun. In this vicinity, however, there are many sweat shops and household industries conducted by the Russian and Polish Jews.

Very truly yours,

HENRY M. HURD,  
*Supt.*

April 11, 1906.

I do not consider that there is any appreciable danger to the public health from street dust near a tuberculosis clinic, over and above the general unwholesomeness of city dust. As you know, sunlight and diffuse light kill tubercle bacilli in a short time. My clinic is not a large one, and no evidence has come to my notice that my patients expectorate upon the sidewalks near the Dispensary. [We have now a State law against all expectoration upon sidewalks.] My clinic—a part of the Boston Dispensary—is situated in a thickly settled tenement-house section of the

city. We have had no complaints from any one. My Tuberculosis Clinic is only one division of a large Dispensary and on the outside of the main building is only the sign "Boston Dispensary." This, as you see, is a different proposition from a single building devoted solely to tuberculosis. In this latter case, however, I can see no earthly objection to such a clinic, and I do not believe there is the slightest evidence that any danger would ensue to the neighborhood from the establishment of such an institution. Moreover, I believe it would be of incalculable benefit. Even if there was danger such a clinic would aid in controlling a thousand times greater danger.

Sincerely yours,

E. O. OTIS.

April 16, 1906.

In reply to your note of April 10th, addressed to the Superintendent of the Tuberculosis Clinic of this Institution, I beg to say that, in our opinion, there are no increased dangers to the public health from the traversing of patients to our clinic for tuberculosis, since in any case they go about the street and in visiting us they come in the early morning and evening at a time in which there is less traffic than ordinary. Besides all this, they receive instruction twice a day as to how to comport themselves in the streets and in public conveyances, as well as in their homes. It is our decided opinion that the dangers from tuberculosis are decreased by the existence of clinics such as ours. Our clinic is in a very populous part of the city, on the border of the great East Side. No complaints have been made by the residents or has any official action been taken against its establishment or maintenance. At a later day I will send you a photograph of a portion of the Tuberculosis Clinic. I also send you a copy of our last Annual Report, which gives a view of our Tuberculosis Annex.

I am, very truly yours,

D. B. ST. JOHN ROOSA,

President N. Y. Post Graduate Hospital.

PHILADELPHIA, April 12, 1906.

Your letter of the 10th inst. to hand. At the Henry Phipps Institute we treat the poor and most illiterate consumptives of our city, and we find that we are able to control their habits in such a way as to make them entirely free from danger to others. Since the Institute was established—something over three years ago—the spitting on the public streets has decreased in this

city, and this is particularly perceptible in the vicinity of the Institute. When we located in our present quarters, which are in the slum district of Philadelphia, the neighbors objected; but I believe that, at the present time, the neighbors are heartily in favor of our remaining where we are, and I am inclined to think there would be a petition against our leaving, should we make up our minds to leave here. Tuberculosis is rapidly decreasing in Philadelphia, and I have every reason to believe that the existence of our dispensary is one of the principal causes in the reduction.

It has been well established by Cornet and others that there is practically no danger of contracting tuberculosis from street dust. Cornet found that the street cleaners of Berlin had a lower death rate from tuberculosis than the average laborers. In my opinion, the establishment of dispensaries is not only a protection to a community, but is a protection to the immediate neighborhood in which it is established.

Very truly yours,

LAWRENCE F. FLICK,

Medical Director.

Per M. P. R.

April 16, 1906.

I am sorry you are having this trouble. The objection to your Clinic seems to me unfounded.

Answering your questions I would say:

1. Our building is not in a crowded part of this city. Indeed, Worcester is hardly crowded in any part.

2. I think sputum, even if it were deposited in a wide, sunny street, would be a very inconsiderable source of danger (*inconsiderable*, I said).

3. Besides being for patients in the city our Clinic is the examining office for the State Sanatorium at Rutland, and so is well advertised.

4. I have never heard of any complaint, and the superintendent of the Hospital tells me he has never heard of any. No official action has been taken against the Clinic.

5. Expectorating on the streets. On my way to the building I go over the street the large majority of our patients do. I see no more evidence of expectorating here than in other parts of the city. I think our patients would expectorate less than others, because of the instruction they have.

The view of the hospital inclosed would indicate that there is much vacant land about. This is not so. It is surrounded in all directions by



houses, mostly what we call "tenements," each house accommodating two or three families, and each having a small yard.

I hope you will prevail.

Yours truly,

ALBERT L. GETCHELL.

April 12, 1906.

I have your letter of April 10th, addressed to the Superintendent of Dispensaries of the Tuberculosis Committee. The Tuberculosis Committee (which has been reorganized as the Chicago Tuberculosis Institute) has not hitherto had a dispensary, and consequently we have no means of answering your questions. We hope to establish a dispensary soon in Chicago, and should be glad to learn how you succeed in Brooklyn.

Very truly yours,

PERCY W. DAVIS,

*Assistant Secretary.*

NEW YORK, April 14, 1906.

Your note of inquiry regarding our experience at the Presbyterian Hospital Clinic has been referred to me for reply. I would say that for more than ten years we have given special attention to the treatment of tuberculous cases in a residential district, and as far as I am aware, there have been no complaints from our neighbors who have homes in the vicinity. I am sure the unanimous opinion of the physicians connected with the clinic is that the careful training our patients receive renders them far less a menace to the health of the community than if they were left in ignorance and neglect. In my experience, almost without exception, consumptive patients are appreciative and grateful for the hygienic instruction they receive, and for the most part are intelligent and conscientious in following advice.

Very sincerely yours,

HENRY L. SHIVELY.

NEW YORK, April 17, 1906.

Your letter of April 10th, addressed to "Supt. of the Department of Tuberculosis, Vanderbilt Clinic," came under my notice as the Superintendent of the Clinic itself, and was by me referred to the Chief of the Medical Division of the Clinic, in which Division cases of tuberculosis receive attention. Your letter has been returned to me by the Chief of that Division, Dr. Summer, for such reply as, in my judgment, was called for by existing conditions. I there-

fore, have to report that, as already stated, the Clinic has no department of tuberculosis.

It is, I believe, however, doing an important work in trying to arrest the spread of tuberculosis. If any danger to the public has been experienced from street dust contaminated by expectorations in the public streets, from consumptives visiting the Clinic, it has not been noted; neither has the practice of expectorating on the streets in the neighborhood of the Clinic been commented upon to my knowledge by those living in the vicinity. The Vanderbilt Clinic is "in a populous section." No complaints have been made by residents, or any official action taken against its maintenance. I regret my inability to comply with your request for a photograph of the Clinic.

I presume it is known to you that it is closely allied with the College of Physicians and Surgeons, which is the Medical Department of Columbia University.

The total number of patients attending the Clinic last year was 45,355; the number of visits made by them 156,792. The number of patients in the Department of Medicine alone was 14,026, and the number of visits made by those patients 43,520. The largest number in attendance in all the Departments of the Clinic on any one day was 682.

Yours very respectfully,

JAMES R. LATHROP,

*Superintendent.*

MINNEAPOLIS, MINN., April 14, 1906.

Referring to your letter of the 10th inst., I would say that in our work here we have, so far as I am informed, had no complaint in regard to the tuberculous cases being treated at our dispensary. Our dispensary is just across the street from the City Hospital, and, in a semi-business district, but well built up with numerous flats and residences.

From personal observation I have seen nothing objectionable in such a dispensary and the danger from street expectoration is minimal as compared to house infection. The vast good such tuberculosis dispensaries do makes such objections, as mentioned in your letter, seem very trivial and selfish, indeed.

Wishing you success in your fight for the public good, I am,

Yours sincerely,

C. H. BRADLEY, M.D.,

*Chairman Ex. Com.*

*Hamlin Dispensary.*

April 18, 1906.

In answer to your letter of inquiry, I will state briefly my view in the matter.

We treated from January 1, 1905, to December 31, 1905, in the Harlem Dispensary for Tuberculosis, 1,158 cases. We also dispensed 1,789 quarts of milk and 182½ dozens of eggs.

I do not think there is any more danger of the street dust from that street than any other. We furnish our patients with paper napkins and ask them to make use of them in expectorating, and burn after. Our Clinic is situated in a populous section of the city.

There has never been any complaint made by residents in that neighborhood, nor has there been any official action taken against its establishment or maintenance. We think we are doing a great good in our work. The Tuberculosis Clinic has only been opened about one year and a half.

I am sorry to say I have no photograph of our Clinic.

Very truly yours,

CHARLES H. MOAK,  
*Physician in Charge.*

PROVIDENCE, R. I., April 18, 1906.

In reply to your letter of April 10th, I would say that our clinic for cases of pulmonary tuberculosis is held in the same building with the other out-patient clinics of the Rhode Island Hospital. We have never had any complaint that our patients expectorated about the street, hospital grounds or out-patient buildings, and certainly in connection with the clinic they are careful to use the proper receptacles for their sputum. Our clinic is, however, in one of the poorest sections of the city.

Our examining rooms for the State Sanatorium are in a business block in the center of the city, and no objection or complaint has been made by any of the other tenants of the building as to any promiscuous expectorating and our observation has been that tuberculosis patients are now, as a rule, quite careful as to where they expectorate.

As to the danger from sputum deposited in the street, drying and then being transported to meat or other food in neighboring stores, I consider that it is very slight. Even brief exposure on the part of the bacillus of tuberculosis to sun and fresh air so weakens its vitality that even if it is not actually killed it is perfectly harmless. I consider the danger in tuberculosis to be in close and prolonged contact. If the physicians attending the clinic are willing to risk

contracting the disease it seems unreasonable that others should object to the establishment of that clinic anywhere on the ground of danger of infection.

In selecting a site for our State Sanatorium a few years ago, I am pleased to be able to state that no section of the State visited objected to having the Sanatorium there established.

Yours very truly,

JAY PERKINS, M.D.,  
*Phys. to Dept. of Pul. Tbc., R. I. Hospital.*  
*Vis. Phys. St. Joseph's Hospital, Tuberculosis Branch, Hills Grove, R. I.*  
*Admitting and Consulting Physician to R. I. State Sanatorium for Consumptives.*

MONTREAL, April 17, 1906.

I am in receipt of your letter of the 10th inst., and willingly give you any information or details of our work which may aid you to establish your clinic. Our clinic is established practically in the center of the city; it is neither in the business quarter, nor in the better residence quarter, nor is it in the midst of the thickly congested regions or slums. At first we found difficulty in obtaining a suitable building, owing to objections of owners or residents, but having once obtained our building and established the dispensary, we have heard no complaints of any character against the conduct or habits of our patients. One would be much surprised in attending the clinic to notice the small amount of coughing and expectoration. At times when eight or ten patients may be waiting during a period of from one to three hours, there will scarcely be more than half a dozen efforts at coughing, and perhaps one or two necessary expectorations. It is not unusual that for several days the sputum boxes or sanitary cuspidors placed in the rooms will remain unused. As for the conduct of the patients on the street in the neighborhood of the clinic, I have never seen them expectorate at all, but of course I do not always see them on the way to and from the building. I have found that the ordinary dispensary patient is not an habitual cougher, and very seldom expectorates during the day. The argument we used in establishing our dispensary was this: that these ambulatory patients are continually on the streets, in the street cars, and mingling with the citizens; no attempt has been made to interfere in their right to do this, and no objections are made by the people, why then should there be any objection to bringing them together for a short time in order to instruct them in a way which



will be beneficial to the public? To those objectors who claim that no amount of instruction or education will prevent the consumptives from expectorating in the public streets, I would say that one has only to come into contact with these patients for a short time to appreciate the care which they soon learn to exert. It is a well-known fact that they become far more careful through the influence of being brought together. I would therefore personally assert from the experience of this clinic that the danger from the aggregation of consumptive patients is almost nil, and there is not any necessity or truth in the assertion that this aggregation of patients results in an increased amount of street expectoration.

Regretting that I have not a photograph of our clinic to send you, I remain,

Yours very truly,

E. S. HARDING, M.D.,  
*Secretary.*

#### THE LONG ISLAND OPEN AIR SANATORIUM.\*

BY HORACE GREELEY, M.D.

The open air sanatorium being admittedly so potent a factor in the effort to control tuberculosis among the urban population, I am going to describe to you the plans and purposes of the Long Island Open Air Sanatorium, an institution incorporated within the last year with the approval of the State Department of Charities in an attempt to meet some of the urgent needs of the Brooklyn consumptives.

To in some measure indicate those requirements and to call your attention to the prevalence of the disease in Brooklyn I will state that it may fairly be said that we have from fifteen to thirty thousand persons suffering from pulmonary tuberculosis: this estimate is on the basis of, first, the 5,000 new cases that are annually reported to the Health Department; second, the 5,000 cases that remain alive and still ailing of those previously reported; third, the 5,000 cases that in the natural course of events will be reported next year but which are most probably in the early stages of the malady at present, most of those reported being at that time advanced in the disease—consumptive.

To this sum total of 15,000 should be added, varying according to one's estimation of them,

those cases that never seek medical aid, those whose disease has not been diagnosed and those in whom it has been recognized but not reported to the department.

We may fairly consider that 10,000 of these cases are in a condition to be substantially benefited by the modern hygienic treatment, but of this number possibly one-half can either not be induced to leave the city or may be safely treated at home.

Of the remaining 5,000, at least 2,000 are independent and able enough to pay \$5.00 or \$6.00 per week in a model open air institution on Long Island. The others, 3,000 in number, could be provided for by the Department of Public Charities either in an establishment of its own or by paying the usual rate paid to hospitals in the city to a properly conducted private sanatorium.

That this sum, 80 cents a day, is ample, has been demonstrated by the Brooklyn Home for Consumptives where less than one-half the inmates are paid for by the city and where, notwithstanding its splendid diet and general good care, the public stipend more than half covers the cost.

In the entire State of New York in institutions offering true open air treatment, there are at present accommodations for only about 282 patients without charge, for 110 at \$5.00 per week and for only about 200 at \$10.00 to \$35.00 per week.

In these institutions during 1905, Brooklyn was represented by but nine cases, which fact is easily understood by any physician who has attempted to secure sanatorium treatment for a patient of moderate means and well-developed tuberculosis. And conditions are apt to remain the same so long as sanatoria are as few in number and so high-priced as at present, and while the record of cures made is a prime consideration therein.

These institutions receive only very incipient cases which while they may be claimed as properly classed, still, in many instances, lack the absolute proof of the disease, the demonstrable presence of the tubercle bacillus. The definition of a suitable case for admission as given by the State Sanatorium at Ray Brook (that formulated by the National Association for the Prevention of Tuberculosis) is as follows:

"Slight initial lesion in the form of infiltration limited to the apex or small part of one lobe. No tuberculosis complications. Slight or no constitutional symptoms, particularly including

\*Read at the meeting of the Medical Society of the County of Kings, April 17th, 1906.

gastric or intestinal disturbances or rapid loss of weight. Slight or no elevation of temperature or acceleration of pulse at any time during twenty-four hours, especially after rest. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent."

The necessity of a sanatorium is, I think, therefore apparent, and I venture to state that there is not a general practitioner in town who cannot name at least two cases in need of, and anxious to secure, such treatment.

We have selected a site on the middle and highest portion of the island, near Medford Station, where the Central Labor Union has purchased for us with \$1,200.00 subscribed by 1200 workmen, a beautiful well-wooded tract of 65 acres. This locality offers many advantageous conditions of climate and soil; its average summer temperature is five degrees cooler than New York City, while in winter it is again favored by reverse conditions, being warmer by fifteen degrees; it has a low relative humidity owing to the rapid action of its sandy soil in absorbing and carrying off moisture; it has an average of three hundred sunny days in the year, Denver having only twelve more; and, above all, it is not subject to those sudden fluctuations in temperature so common to this city.

Its proximity to Brooklyn (50 miles) renders it so easy of access that the questions of traveling expenses, exile from home and friends, will never prevent a consumptive from availing himself of the hygienic treatment offered. Furthermore, all recoveries will be effected under climatic and atmospheric conditions similar to those to which the patient hopes to return, and he will never, as in the case of many of the Colorado cures, be obliged to establish his permanent residence far from home and friends.

When the consent of the local town board has been obtained,—and this was once secured, but the matter had to be gone over again owing to an unforeseen difficulty in securing perfect title to the land first selected,—we propose to erect a two-story building with extending wings, estimated to cost \$50,000, containing 100 single rooms for patients arranged along balconies extending from a central administration building. These wings, which may be extended indefinitely almost, contain besides the bedrooms the toilets and a rear corridor for general communication with a front portico to be used exclusively for lounging purposes.

The structure will be of wood with concrete exterior and hard wood lining and will conform

in all particulars to the best modern ideas for such an institution. The initial cost of the entire plant being paid for by voluntary contributions, we expect to make it self-sustaining on a charge per individual of from \$5.00 to \$6.00 per week.

Having thus briefly outlined our plans, I wish to disclaim belief that such an institution is anything of a specific for a social plague such as tuberculosis, for if any principle in therapeutics is well founded it is that which demands the primal removal of the cause, here the predisposition to infection engendered by a life under conditions of physical hardship from poverty or dissipation, and failing a specific medicament, so long as the majority of our improvident philandering race take every opportunity of wasting their neighbors' and even their own sustenance, and cause man to labor only that he may eat and sleep to labor again, tuberculosis will probably be with us.

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#### THE LIABILITY OF PHYSICIANS AND SURGEONS IN CIVIL ACTIONS FOR MALPRACTICE.\*

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BY EVARTS L. PRENTISS, B. LIT. OF THE NEW YORK  
BAR.

The law requires from a physician, in the practice of his profession, the possession of skill, and its exercise with due care, diligence and judgment. For failure to meet these requirements the physician is liable to his patient for any resulting injury.

I. "A physician or surgeon, by taking charge of a case, impliedly represents that he possesses, and the law places upon him the duty of possessing, that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices, and which is ordinarily regarded by those conversant with the employment as necessary to qualify him to engage in the business of practicing medicine and surgery." (Pike vs. Honsinger, 155 N. Y., 201.) He is not required to possess extraordinary learning and skill, but such as belongs to the average member of the profession in good standing in his own community. He is expected, however, to keep up with the times, and use such methods of treatment as are in general use. When a physician is doubtful of his own ability to treat a particular case in which his services have been requested, he should so inform his

\* Paper read before the Long Island Medical Society, April 3, 1906.



patient, give temporary treatment, if necessary, and recommend a physician more skilled in treating such a case.

2. It is the duty of the doctor, in his treatment of a patient, to use reasonable care and diligence in the exercise of his skill and the application of his learning, to accomplish the purpose for which he was employed.

This rule, as was stated in the case referred to, "does not require the exercise of the highest possible degree of care, and to render a physician and surgeon liable, it is not enough that there has been a less degree of care than some other medical man might have shown, or less than even he himself might have bestowed, but there must be a want of ordinary and reasonable care leading to a bad result." Such care and diligence must be exercised not only in examination, diagnosis and treatment, but also in attending upon the patient and in giving him proper instructions.

There is no law which compels a physician or surgeon to respond to a call and perform services, whenever or wherever he is summoned. In fact, he may decline any employment offered him; but after he has once undertaken a case, if he proposes to give it up, he must give notice to his patient of his intention to cease rendering services, and reasonable time to secure another doctor. This rule applies even in a case where the services are rendered gratuitously. The fact that services are rendered without compensation does not affect, in any degree, the duty of the physician to exercise reasonable and ordinary care, skill and diligence in their performance.

The law is that when a physician is employed to attend upon a sick person, his employment continues while the sickness lasts, unless it is ended by notice to the physician, or unless the latter gives the patient timely notice to employ another in his stead.

It has sometimes proved unwise for a doctor to take a vacation without making proper provision for his patients during his absence.

A New York doctor undertook to treat a lady for a fracture of the left arm. He put the arm in splints, and directed his patient to carry her arm in a sling. At the end of six weeks' time the bones had not united. The doctor rubbed the ends of the broken bones together, put on the splints, and told his patient, as he averred, that he was going away for a vacation, and would be back within ten days or two weeks. In the meantime, he directed her to keep her arm in a sling. The doctor's vacation was of longer duration than he had intended, and five weeks passed

before he saw his patient again. Then he discovered that the bones had slipped from their position, overlapped, and in this condition formed a union causing a deformity.

An action against the doctor followed, in which the jury assessed the patient's damages at \$2,000. The court, however, reduced the recovery to \$500. Even this amount, with the outlay attending the defence, increased materially the expense of the doctor's outing.

The obligation to use care in examining cases of alleged insanity is illustrated by an action brought by a person who had been confined as a lunatic. The plaintiff averred that the physicians who made the certificate, upon which he had been committed, had acted without proper and ordinary care and prudence, and without due examination, inquiry and proof into the fact whether he was sane or insane. The court, on demurrer to the complaint, held that the physicians were liable for their negligence in such a case as they would be for negligence in any other matter of their practice.

A woman falling from a horse dislocated the elbow joint of her left arm. Through want of skill, or negligence, on the part of her physician, as she claimed, in reducing the dislocation, or in omitting the necessary precautions to keep them in place, the bones became permanently dislocated. After the arm was set, it was placed upon a pillow, where it was subject to the risk of being displaced by the excitement of a nervous woman, liable in her suffering to change the position of her arm. Nothing was provided to keep the arm in place; neither a sling, which was a common mode, according to some medical authorities, nor splints, which might have been used, were employed.

An action against the physician was severely contested in the courts for many years. The Court of Appeals, in its opinion, finally sustaining a verdict against the physician, says that the responsibility of not providing safeguards against the consequences of the patient's imprudence or want of self-control, rested with the physician, and that it was his further duty to give proper instructions to those attending the patient and to point out to them the danger of relaxation. (*Carpenter vs. Blake*, 75 N. Y., 12.)

3. The physician and surgeon, in treating a patient, is under the further obligation to use his best judgment. He will not be liable for mere errors in judgment; but his judgment must be founded upon his intelligence. He is expected to possess and employ skill and knowledge in his

treatment of a patient, and he is consequently chargeable with knowledge of the probable consequences of an injury.

The safe rule for the physician to follow, when the exercise of judgment is required, is to keep within recognized and approved methods of treatment. He cannot then be held liable for the consequences.

The question of the authority of a surgeon to perform an operation in a particular case, and the limitations of such authority, have been subjects of recent judicial discussion.

A case recently decided in the New York Appellate Division involves the first inquiry.

The mother of a boy of eleven years, discovering that her son had something the matter with his arm, sent him, in care of a young woman, to a hospital in New York. The surgeons there, after examining the boy, decided that he was suffering from blood poisoning, and that surgical treatment was needed at once. Chloroform was administered, and an operation was performed. Just as the work of the surgeons was completed, the child died.

The mother, as administratrix, brought an action against the surgeon for negligence. She attempted to assert that her son had been sent to the hospital for examination only. But there was no proof that such limitation had been communicated to the surgeons. In fact, the complaint in her action stated that the defendants were employed "to attend and cure the child of certain pains which he had in his right arm." The two positions assumed by the plaintiff were held to be inconsistent, and the court said that if the allegations of the complaint are true, the surgeons "were not negligent in doing whatever in their best judgment was calculated to produce the result for which they were employed."

The Appellate Justice writing the opinion says: "When we call a physician or surgeon we submit our case to his care; we act upon the assumption that he knows more about the matter than we do, and consent is given by implication for him to do whatever appears to be necessary or proper for our relief, and in the absence of some evidence to show that the defendants had notice that their services were only to go to the extent of an examination, it cannot be said that the defendants were guilty of negligence of any duty owed to the plaintiff or her son in not asking" the person in charge of the boy for her consent to the operation. "If the operation, considered in its surgical aspects, was one of great peril, it might be that the defendants would not

be justified in proceeding without consultation with the mother or some person of suitable age authorized to act for her." (*Wood vs. Wyeth*, 80 A.D., 628.)

An unusual case,—involving the limitation on professional authority,—was recently before the courts of Illinois. A woman went to a hospital for some slight operation, and afterwards returned and submitted, as she supposed, to another of the same character, being deceived by the surgeon in this respect. The purpose of the surgeon, which he carried out, was to perform a major operation, removing some of the organs of the body. The doctor's excuse for acting without the consent of his patient, and for deceiving her, was that the mental condition of the woman was such that it was impossible to take her into advisement in her own case. The jury, in an action against the surgeon, awarded punitive damages in the sum of \$3,000, and this verdict was upheld in the Appellate Court, where the doctrine was asserted that, "Except in cases where the consent of the patient is expressed, or is implied by circumstances and occasions other than a mere general retainer for medical examination and treatment, and except, also, where there is a superior authority which can legally and rightfully dispose of the person of the patient, and which gives consent, a surgeon has no right to violate the person of the patient by a serious major operation, or one removing an important part of the body."

The doctrine of the right to the preservation of one's person in its integrity during life, which was asserted in the case last cited, has been extended to protect the person after death; and an action for damages will lie in this State for the unauthorized dissection of a dead body; the right of action being in the person entitled to the possession of the body for purposes of preservation and burial.

Lack of skill, care or judgment in rendering professional services, are the most common grounds of action against physicians. But it might be of interest to cite one or two instances in which damages have been awarded for conduct disassociated from actual treatment.

An illiterate man, badly injured in an accident and physically a wreck, consulted with the physician and surgeon in charge of a medical institute as to his condition, and the probability of a recovery. After an examination by the surgeons, he was positively assured, if he told the truth as to what was said (and the jury found that he did), that he could be cured, and by treatment at



that institute could and would be made sound and well. The injured man believed the representations, and paid over \$500 to the institute. The representations were not realized, and the disappointed patient brought an action against the institute for deceit. It transpired upon the trial that the man had sustained a fracture at the base of the skull, and that his injuries were incurable. A verdict for the patient was sustained, on appeal, upon the theory that the doctor, with his skill and ability, should be able to approximate to the truth when giving his opinion as to what could be done with injuries of this sort, and that he should have been able to speak with certainty before he undertook to assert positively that a cure could be effected.

The risk incurred in making representations which are not based upon facts was illustrated in a case where a physician, a local health officer, applied to a man to whitewash a house, recently occupied by one of his patients, a woman who had died of smallpox. The man knew of this circumstance, and said he was afraid, but the doctor assured him that the house had been thoroughly disinfected, and that he would be entirely safe in entering and whitewashing it. The man accepted the employment, contracted the disease, and remained sick for a considerable time, suffered greatly, and was put to loss and expense by reason of his illness. An action was brought against the physician, but resulted in a non-suit. On appeal a new trial was granted, and the case was held a proper one for the jury on all the facts.

The relation between the parties to this action was not a professional one, but simply that of master and servant; and I have cited it merely to show that liability may sometimes follow the utterance of an untruthful or unconsidered statement.

The patient on his own part has a duty to perform. He must give his medical adviser information of the facts and circumstances of his case, and submit to the treatment prescribed, provided the treatment be such as a physician of ordinary skill would adopt or sanction: but if it be painful, injurious and unskillful, he is not bound to peril his health and perhaps his life by submission to it.

If the injury, for which a patient seeks recovery, results from his own carelessness alone, or is the effect of his own carelessness in combination with the want of skill, or neglect of his medical adviser, the latter cannot be held liable.

In New York State a civil action for malprac-

tice must be commenced within two years. If the physician dies or the patient dies, the cause of action dies. But where a patient's death has been caused by the negligence or wrongful act of his physician, an action for damages under the statute might be maintained by the executor or administrator of the deceased patient who has left a husband, wife, or next of kin surviving him.

The fact that a physician's reputation is his capital makes his position peculiarly liable to attack from the unscrupulous and mercenary. And yet, actions for malpractice are not common in this State. This circumstance is gratifying in itself, and does credit to the standards of the medical profession, as they have been established and as they are maintained by its members.

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## TRANSACTIONS OF SOCIETIES.

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### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

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STATED MEETING, APRIL 17, 1906.

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The President, W. F. CAMPBELL, M.D., in the chair.

There were about 150 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

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#### REPORT OF COUNCIL.

The following candidates have been accepted by the Council:

Emil Constantine Bernauer, 860 Lafayette Avenue.

LeBaron Botsford, 225 Stuyvesant Avenue.

Harold R. Dunton, 3 Lafayette Avenue.

L. H. Finch, 119 Brooklyn Avenue.

Louis Harris, L. I. C. H.

Matthew J. Leland, 220 Sixth Avenue.

Leo A. Lynch, 919 St. Johns Place.

Harry Michaelis, 236 Vernon Avenue.

Gregory I. Miller, 700 St. Marks Avenue.

Albert S. Nicholson, 210 Graham Street.

Stanley B. Thomas, 391 Second Street.

George Wieseckle, 66 Bushwick Avenue.

The Council recommended that as Dr. Joseph F. Raymond had retired from active practice, he be elected to honorary membership. On motion, duly seconded and carried, the recommendation of the Council was accepted.

## APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Oscar Bast, 124 Jefferson Avenue, L. I. C. H., 1905.

Charles Bromberg, Bushwick Hospital, L. I. C. H., 1905.

James G. Ditmars, 496½ Sixth Avenue, L. I. C. H., 1898.

Walter G. Hirsemann, 408 Clinton Street, L. I. C. H., 1903.

Gerard Kasper, 426 Evergreen Avenue, L. I. C. H., 1905.

J. W. Stevens, 835 Hancock Street, L. I. C. H., 1905.

Alexander N. Thompson, 1309 Bedford Avenue, L. I. C. H., 1905.

Proposed by W. F. Campbell, seconded by Membership Committee.

John B. Byrne, 216 Sixth Ave., L. I. C. H., 1900.

Proposed by S. J. McNamara, seconded by Membership Committee.

John D. Freitag, Jr., 433 Ralph Avenue, L. I. C. H., 1905.

Samuel Schwartzman, 332 Stone Avenue, Cornell, 1903.

Proposed by W. F. Dudley, seconded by Membership Committee.

William F. Ganster, 26 Berkeley Place, L. I. C. H., 1896.

Proposed by F. C. Holden, seconded by J. O. Polak.

Frederick H. McCarthy, 410 Clinton Street, McGill Univ., 1902.

Proposed by James Watt, seconded by Membership Committee.

William B. Meister, 186 Washington Avenue, Bellevue, 1904.

Proposed by D. S. McNaughton, seconded by George McNaughton.

Edward J. Murphy, 773 Carroll Street, P. & S., 1904.

Proposed by Walter A. Sherwood, seconded by Membership Committee.

Joseph Weinberg, 482 Quincy Street, Cornell, 1900.

Proposed by C. G. Crane, seconded by Membership Committee.

## ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

Moris J. Dattelbaum, 335 Stone Avenue.

William Dillon, 192 North Sixth Street.

F. B. Doyle, 311 State Street.

Traverse R. Maxfield, 452 Ninth Street.

George W. Newman, 234 Leonard Street.

George C. Owens, 275 Kingston Avenue.

Martin J. Sgier, 1036 Myrtle Avenue.

Horace M. Sloat, 149 Van Buren Street.

George A. H. Smith, 313 Sixth Avenue.

George W. Tong, 429 Third Street.

Dr. A. T. Bristow offered the following resolution, which, on motion, duly seconded, was adopted:

*Whereas*, The Massachusetts State Board of Health has shown that 67 familiar and widely advertised proprietary medicines contained an average of 20.4 per cent. of alcohol; also that many so-called cures for drunkenness contained large quantities of alcohol, although labelled as free from alcohol; and

*Whereas*, Many other proprietary remedies contain dangerous quantities of antipyrin, acetanilid, cocaine, morphine and other deleterious drugs; and

*Whereas*, Said proprietary remedies are consumed in large quantities by the public, which is ignorant of the ingredients thereof and the dangers attendant on their use,

*Resolved*, That it is the opinion of the Medical Society of the County of Kings that the Stevens-Wainwright Bill, now pending in the Legislature, Senate No. 258, Assembly No. 456, should become law, so that if the people wish to make use of said remedies, they shall at least know what they are taking;

*Resolved* further, that a copy of these resolution shall be forwarded to the Governor and to every member of the State Legislature.

## SCIENTIFIC PROGRAM.

ADDRESS: "HOW CAN THE PHYSICIAN AND LAYMAN ACCOMPLISH MOST IN THE FIGHT AGAINST TUBERCULOSIS."

By S. A. KNOPE, M.D., Manhattan.

Discussed by Drs. Raymond and Greeley.

Adjourned.

W. A. JEWETT,  
Associate Secretary.



## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, FEBRUARY 20, 1906.

The President, W. F. CAMPBELL, M.D., in the chair.

PAPER: THE TREATMENT OF MENINGOCOCCUS MENINGITIS IN THE FIRST MEDICAL DIVISION OF BELLEVUE HOSPITAL DURING THE EARLY SUMMER OF 1906.

BY EDWARD L. DOW, M.D., NEW YORK CITY.

### *Discussion.*

DR. WM. BROWNING characterized the paper as most admirable and sane. He saw nothing to really criticize in it, and what little he had to say would be in extension of the points already mentioned by the speaker.

It is well recognized now, said Dr. Browning, that meningococcus meningitis is a less dangerous disease than any other of the infective forms as the pneumococcic, tubercular or streptococcic. They are all of them as a rule more severe and much more dangerous. We are apt to think of the epidemic as the worst form, but it is the lightest.

The doctor did not call attention to the possibility of the spread of this disorder. There has been a great deal of contradictory evidence on this point and opinion seems to differ a great deal. It is rarely communicated from one patient to another individually, but possibly in exceptional instances this may occur. Probably that is the only safe conclusion we can arrive at at the present time. Bearing that in mind, and also the fact that we do not know how this disorder is communicated from person to person, or exactly how the person acquires it, it is certainly warrantable to take ordinary preventive measures. In this regard the matter of air and sunlight is most important. Put the patient in the sunniest room at hand, with the head towards the light and shading for the eyes. Within the last two weeks he knew of a nurse who developed the disease after attending such a case. He had never had this experience before, and, though this may well have been of other origin, it brings home the possibility that the disease may be sometimes communicable.

To come to one of the main points on the doctor's paper, the consideration of the changed mechanical conditions of the meninges: The secondary results that follow from the blood-congestion and from the hypersecretion and stasis of chor-

oidal fluid, produce a considerable share of the symptoms in most cases, certainly in those that are other than rapidly fatal. These are largely amenable to treatment, while as yet we have no antidote, no means of directly combatting the infection. The principle of keeping the head a little elevated has been carried out for some time by the speaker, and where this is possible with apparent benefit.

To illustrate the indirect symptoms produced by this condition Dr. Browning mentioned the following case. In 1900 he saw a patient with this disease, proven by microscopic examination; it ran a severe course with a relapse but ended in recovery. Some five years later (in 1905), after an excessive amount of night and day mental and physical work, he was again stricken in a manner to raise the question whether it was an attack of the same disorder or not. He this time showed the following symptoms: severe frontal headache, nausea and vomiting at the start, pulse down to 60 and respiration to 14, retention and incontinence of urine, great mental sluggishness, although the mind was perfectly clear, tendency of the knees to give way when he attempted to stand and great increase of pain by the effort, some retraction of the head after a couple of days, and slight swelling of one disk with increased amount of blood in the vessels of the fundus. But as there was no rise of temperature, no photophobia, no eruption, no increase of tonus in extremities (in fact, absent knee jerk), the existence of a cerebrospinal meningitis could be excluded. Recovery occurred. These symptoms could be attributed to the accumulation of fluid due to the old blocking up of efferents,—when an added strain was put on them. It gives us a pure picture of the mechanical factors in ordinary cases of cerebrospinal meningitis. And other cases showing similar attacks in former subjects of this disorder confirmed this view.

## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MARCH 20, 1906.

The President, W. F. CAMPBELL, in the Chair.

"CUSTOM AND FASHION IN SURGERY,"

BY JOHN CHALMER DA COSTA, M.D.

*Discussion, concluded from p. 137.*

Dr. Wiggin, continuing, said he had also derived a good deal of advantage from a moderate

use of ergot for a week or ten days before operation in avoiding the tendency to shock. It regulates the circulation and calms the nervous system, and instead of the patient being frightened and nervous about the operation, they are well balanced and do not dread it at all. They take the anesthetic without the slightest degree of discomfort, and go through an operation of ordinary severity with a pulse rate not to exceed 85.

The speaker said he confined the use of saline solution intravenously to cases of malnutrition and where the vessels were empty from hemorrhage. In abdominal cases he generally filled the abdomen with hot saline solution and left it there. As a matter of routine following an operation he gives an enema of saline solution, about a pint every four hours, giving the patient nothing by mouth till the bowels have moved or gas escaped freely from the anus. He finds that the use of the hot saline solution in the bowel, especially in operations about the abdomen and pelvis, tend to relieve a good deal of the pain due to congestion as it improves the local circulation.

He remembered once having a severe attack of ptomaine poisoning, with a temperature running up to 105°, with terrible aching pain in the back, etc., and it occurred to him a saline enema might be of service to him, and receiving and retaining it all this ache and pain disappeared in a short time.

About the matter of pain and the use of cold he agreed with the doctor entirely. The speaker wished to speak of one point, which has served him many times, and which he got from a country practitioner in New Hampshire, and that was, instead of using mustard pastes and hot water bags, that taking a dram of chloroform in the palm of the hand and then pressing it on the part where pain was felt and holding it down there, that it would relieve that pain if it were possible for anything to do it, and it would have a more lasting effect than simply reddening the skin. There was one instance where its usefulness was very marked, viz., in lumbago, where formerly he used the actual cautery, and he found that usually the use of chloroform once in this way relieved the patient entirely.

DR. J. R. GOFFE said that it is a desirable thing to hold the mirror to ourselves at times and see ourselves as others see us. There was no doubt but that that had been successfully

accomplished by the reader of the paper this evening. As Dr. Wiggin had said, it was not an easy paper to discuss. In fact he was nonplussed to know how to begin or what to say. He thought we were entirely in sympathy with the doctor's plea for careful surgical diagnosis, and certainly approved of his denunciation of reckless and careless exploratory incisions.

In regard to the diagnostic education that has been derived from exploratory operations, he recalled the change of thought that has come from this procedure, as well as deliberate laparotomies in the pathology of pelvic inflammations. We all know how the theory of pelvic cellulitis was built up, and taught, and generally accepted, and it was not until we were able to look into the pelvis and discover what the actual disease was that cellulitis suddenly melted away, and we recognized the condition formerly pronounced cellulitis, as salpingitis and salpingo-ovarian abscess. The speaker remembered very distinctly when he was an interne at the Woman's Hospital in 1882, that at the autumn meeting of the Obstetrical Society of New York, Dr. Emmet, who had just returned from a trip abroad, during which he had visited Lawson Tait, of Birmingham, brought with him a number of Fallopian tubes that Lawson Tait had presented to him. Dr. Emmet then said that he believed that pelvic cellulitis was very largely tubal trouble, and that Lawson Tait was curing it; but he added that as far as he was personally concerned, he would never try to open the abdomen of a woman and remove a Fallopian tube. Dr. Thomas was present and did not have such scruples; he immediately acted on the suggestions of Tait in this matter and inside of three months presented before the Academy of Medicine a paper, in which he reported three cases in which he had operated for salpingitis, removing the tubes. The speaker spoke of this as being illustrative of the fact that exploratory operations assist immensely in clearing up false ideas of pathological conditions as well as the diagnosis.

In the elaborate philosophico-psychological discussion that the doctor presented, showing the struggle that truth has to undergo in order to gain a place for itself in the world, Dr. Goffe was reminded of a discussion that occurred in the New York Academy of Medicine a number of years ago. There was an epidemic of puerperal fever in New York. Fordyce Barker,



who was the great obstetrician of that time, had been the attendant in a number of these cases, cases that occurred in some of the most prominent families in the city, and it had excited a good deal of discussion and gossip. Thomas read a paper in which he advocated very strongly the idea of infection from the attending accoucheur, and emphasized the principles that had been presented by Semmelweis and Oliver Wendel Holmes. Barker was present and Thomas had gone to a rather extreme degree in describing how a room should be made aseptic for accouchement, saying that no such operation should be performed unless the carpets were taken up, the curtains removed, the walls and floors scrubbed and washed in bichloride, etc. Barker, in discussing the paper ridiculed him, much to the great irritation of Thomas who demanded that they should have a deferred meeting to continue the discussion of the paper. Barker maintained that the infection was a mysterious influence floating about in the atmosphere. Thomas came out with a paper in scathing criticism of Barker, and put him completely to rout.

The speaker said he did not believe that the last word had been said in explanation of shock; that we did not know exactly what shock is. To his mind the sheet anchor in shock is morphine, and he believed it should be used promptly and freely, but he thought it was going to take many a year to eradicate from the minds of men who have had experience in saline infusions in shock, that they were wrong. He could not accept the doctor's conclusion too promptly in that matter, for his experience in the use of saline infusions in shock have been so satisfactory and conclusive to his mind, that he should have to find some other method to take its place before he would be willing to give them up. He believed, moreover, that saline infusions have a permanent place in the prevention of shock. Dawbarn was the first to suggest, a number of years ago, that in cases where we anticipate the occurrence of shock from operative procedures, it is well to infuse the patients in advance with saline solution, and so prevent shock, rather than wait until it comes. There are many other indications in which saline injections by rectum, by hypodermoclysis and by direct infusion into the veins is extremely serviceable, and he should be sorry to hear or know that this method of meeting these indications was being

denounced by men of such authority as Dr. Da Costa.

The speaker said he could cite a number of cases in which he used saline solution to his great satisfaction, and to what he believed the great advantage of the patient, and as he said, he should continue to use it for the present.

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## THE BROOKLYN GYNECOLOGICAL SOCIETY.

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A. A. HUSSEY, M.D., Editor.

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STATED MEETING, FEBRUARY 2, 1906.

The Vice-President, R. H. POMEROY, M.D., in the Chair.

DR. CARROLL CHASE showed a specimen of a figure of eight knot in an umbilical cord. The specimen, not a particularly rare one in itself, was shown because he thought the knot tight enough to interfere with the foetal circulation. The parents of the child were both large and healthy, and the mother had previously borne two healthy, well developed children. This child was puny and ill-developed and had an insufficient Eustachian valve. He was decidedly cyanotic or "blue," and lived less than twenty-four hours. Dr. Chase said that, in looking up the literature of the subject, he had discovered several similar cases reported, but that the condition was decidedly rare.

### FIBROIDS WITHOUT MENORRHAGIA.

DR. J. O. POLAK exhibited a tumor that was removed from a patient thirty years of age, single. The interesting point in the history is that notwithstanding the size of this tumor, which is a sub-peritoneal fibroid and the presence of another fibroid in the cervical region, both encapsulated, the patient had had no hemorrhage, her menses had not changed in duration, quantity, or character, from the time of their beginning at puberty to operation. The symptoms that caused her to seek surgical relief were simply those of pressure, the development of the growth, and frequent urination.

This specimen shows that both the tumor in the cervix and the large subperitoneal fibroid of the fundus could have been removed by myomectomy, as she was a young unmarried woman, with possibility of subsequent marriage and child bearing; yet on section an intramural nodule of considerable development, may be seen, which

undoubtedly, later, under the stimulus of the wounds produced by myomectomy, would have developed into a larger growth.

Another point is that the tumor had begun to degenerate, though producing no symptoms, except pressure symptoms, frequent urinations, and enlargement of the abdomen.

#### INTRALIGAMENTOUS UTERINE FIBROID WITH NO METRORRHAGIA.

DR. J. O. POLAK presented a specimen of an intraligamentous fibroid removed from a patient thirty-six years of age, the mother of four children. This woman had no hemorrhage at any time, and no increase of her menstruation prior to or subsequent to her child bearing or the advent of this intraligamentous growth. The growth was in the left broad ligament. It was necessary to remove the uterus, and tie the uterine arteries on both sides, in order to get down and split the ligament and enucleate the tumor. The tumor had displaced the bladder upward, so that the bladder was just under the ordinary abdominal incision.

This uterus, also, presents an interesting distributions of fibroid nodules. There are three subperitoneal fibroids and, besides, a well-marked and well-developed intramural nodule. It is in such uteri as these that when the subperitoneal fibroids are removed the intramural nodules are left, causing the woman to come to a subsequent hysterectomy.

#### ENTERO-VAGINAL FISTULA.

DR. L. G. BALDWIN said that he would like, for the sake of placing it on record, to make a short report of what to him was quite a remarkable and interesting case.

Mrs. W., age forty-six, married nineteen years and never pregnant; had never been ill in her life, menstruation had always been regular until the last year, when they had habitually gone over time. For ten days prior to his seeing her she had had a little show at times. This show was accompanied by a slight fecal discharge from the vagina. When she presented herself to him she had a little dull aching in the region of the pudendum, and that was absolutely the only symptom of which she complained. She was sent to him by a doctor in Vermont, who, in writing, said he was sending a case of recto-vaginal fistula. There had been some previous history of hemorrhoids, and the speaker rather assumed that probably there had been some pressure ulceration, and, of course, a recto-vaginal fistula was present.

On examination, Dr. Baldwin found the fistula was in the anterior wall of the vagina about half an inch from the cervix, and the finger came in contact with a soft, pulpy mass in the anterior wall, which felt very much like a rectum full of feces. On speculum examination he found fecal matter oozing out about the size of a slate pencil, and an opening correspondingly. In passing a probe through this opening he came into a diverticulum or a space between the walls of the vagina and the bladder, and, of course, his diagnosis of recto-vaginal fistula was gone. He had never seen such a condition and did not know what it was, except it was a fistula communicating with some portion of the large gut anterior to the uterus, and he did not know what to do with it, but he decided that he would enlarge the opening in the vagina and clean it out, and see if it would heal up, thinking he would find a foreign body, bone or something else, that had ulcerated through. Without anesthesia he slit this thing up in every direction, and got out just about what would lie on a butter plate of fecal matter, not of bad odor or anything peculiar about it. He could trace the opening between the uterus and the bladder, and passed a probe up through it until he thought he had better stop. He washed out the cavity and packed it with iodoform gauze, and never saw any more fecal matter. The speaker said he reported the case as being an unusual location for fecal fistula and with no symptoms preceding it.

In answer to a question as to whether the material was investigated in any way to determine that the material was fecal matter, Dr. Baldwin replied that there was no question about it. It was not examined by microscope.

#### Discussion.

DR. R. H. POMEROY wanted to know if it was not possible that something like a dermoid could be infected, so as to resemble in odor and appearance fecal matter.

DR. BALDWIN answered that the woman had always been sterile. If it was a dermoid cyst the pelvis would certainly have contained an induration and some evidence of a dermoid cyst. The pelvis was absolutely clear as far as could be made out. Both ducts could be palpated, and it was impossible for this to be other than fecal matter. His explanation was that a foreign body got caught some way, and had slowly ulcerated its way through and got discharged.

DR. W. B. CHASE said that he met with a rather peculiar state of things in an operation for



appendicitis in a girl seven years old. After opening the abdomen, and on separating the intestines a little, it disclosed a fimbriated extremity of the Fallopian tube intensely inflamed, not more than one-half inch from the appendix. The tube itself was inflamed, so that it was as large as his ring finger and at least one and one-half inches long, and the uterus was developed beyond what one would expect in a child of that age. To find so large a Fallopian tube in a child of that age seemed to the speaker to be remarkable.

DR. J. C. MACEVITT said that apropos Dr. Baldwin's narration of a recto-vaginal fistula called to mind a case that he operated on at St. Mary's Hospital a few months ago. A little girl, four years of age, was playing in front of her doorway, when a man enticed her into the back yard and into an out-house and committed rape upon this infant, with the result of completely lacerating the recto-vaginal wall for its whole length. While under preparation for the operation the child developed scarlet fever and was taken to the Kingston Avenue Hospital. When she had recovered she was sent back to St. Mary's, and upon analysis of the urine it was found that it contained so much albumin, that he did not deem it feasible to operate at the time, so the child was kept at the hospital for four weeks. The rent in the recto-vaginal wall was repaired, the perineum likewise, and the child left the hospital well.

PAPER: TWO YEARS' EXPERIENCE WITH FIBROIDS.  
BY DR. JOHN O. POLAK.

#### *Discussion.*

DR. L. G. BALDWIN, opening the discussion, said he was sure that all were very much indebted to Dr. Polak for his interesting paper, and whereas the doctor did not say so, he assumed from his opening remarks he had changed his ideas as to some of the conservative work done on the tubes and ovaries. The speaker said he was unfortunate enough to disagree with some of the statements made when Dr. Polak spoke on this subject a few years ago, but he was very glad to practically agree with all he had to say during the evening. Dr. Polak had gone over the subject so thoroughly and fixed up his fences so well, that there was very little room for attack.

In regard to the remark of cases of myomectomy, which required operation afterward, according to his paper there were five that did not require hysterectomy subsequently. That is not such a bad record, provided these cases are on

record and they are well. Five out of twelve is pretty good, so that if they are well that would be, he thought, interesting for the doctor to tell us about.

The ages of the patients recorded in this series seemed to the speaker to be remarkable, taking them as a whole. He thought that some of his cases were as young, but in the main they have been older—in some cases beyond the menopause. These cases, as a rule, do not get beyond the menopause. Those of 50 or beyond who have been treated for the change of life for ten years is quite unusual.

The question of whether the ovaries shall be left, Dr. Polak had gone over very thoroughly. His feeling is that, unless a woman is pretty young, if she is past thirty-five, he is rather inclined to take out the ovaries, for the reason that twice he had had to open the abdominal cavity after a hysterectomy to remove a cyst, and in his experience the fate of a woman beyond thirty-five who has had both ovaries removed is not as black as often painted. His feeling is, unless you are pretty sure the ovaries are healthy, it is better to take them out.

The speaker more than agreed with the doctor in the prevalence of tubo-ovarian disease as an indication for operation in the presence of fibroids. He had no record of his cases at hand, as to the number in which the disease of the appendages had been the exciting cause for the operation, but certainly it was very large, not only the infected cases from gonorrhea or otherwise, but the cystic degenerations and other inflammatory conditions.

Femoral thrombosis had not occurred as often in his cases as they had in Dr. Polak's, having had only two cases that he could recollect. One of them is under his care at the present time, she having gotten it on the fourteenth day after getting out of bed, and this was the first instance of her being sick. Certainly they are most distressing, and cause more trouble than anything else.

He was sorry that the doctor did not say something in his paper regarding his method of operating as to the treatment of the broad ligaments. Dr. Baldwin supposed it is the one used by everybody else, but it seemed to him that was a large number of cases of thrombosis.

In the deaths due to hysterectomy, the speaker thought we should be very careful not to attribute them directly to the operation or to shock. Of course, there are cases where they are due to shock, but in his judgment most of our fatal

cases in hysterectomy are due to delayed cases, to those who have been told, "Do not let a doctor cut you; this is a fibroid, and when you have passed the change of life you will be all right." These cases go on until they have the train of symptoms the doctor described, the color and everything, and these are our fatal cases, he believed. Of course, it may be shock that kills them, but it is due to the condition they are in when they come to us, and not to shock, as he understood it.

The cardiac lesions are certainly very constant, and it has been his idea that independent of cardiac lesions, fibroids are of malignant growth, that is to say in their effect upon the human economy. One sees a woman with a fibroid half the size of a fetal head; she does not bleed, but she is anemic, she is in bad health. Take out the fibroid and she gets well. They certainly, also, have some other effects besides the loss of blood.

Sarcomatous degenerations have been worked out quite extensively by Baker, of Boston. He has found them very often in a complete examination of all the specimens, or certainly many of them. The other degenerations, as the calcareous, have been noted very many times by the speaker, as being the exciting cause of a peritonitis.

As to carcinoma, he did not know that that was considered a degeneration. He might have misunderstood the doctor's paper, but he did not suppose it was possible to get a carcinomatous degeneration from a fibroid or myoma, supposing that was due to a coincident disease, or an implantation in the endometrium.

Necrosis, in Dr. Baldwin's experience, has occurred twice in a twisted fibroid. One of them in a case he reported here, where it had become twisted during pregnancy.

There was one thing in which he could hardly agree with the reader of the paper, and that was that, as a rule, myomectomy is more dangerous than hysterectomy. That seemed to him not to be so, and he did not see why it should be.

As to the matter of anteflexions and fibroids, it seemed to the speaker that the absence of child bearing is rather more than a cause of the fibroids; that is, if a woman does not bear children she bears fibroids, and it seemed to him that anteflexion, as a factor, is more in causing the sterility than as a real factor of the fibroid.

The doctor has covered the matter of myomectomy as to the extent of growths that he would do a myomectomy on, and we certainly could all

agree with him. He said nothing about myomectomy in pregnant cases, which Dr. Baldwin thought has always to be considered.

The matter of whether in the majority of these cases a supravaginal hysterectomy should be done or a complete one was not quite as plain to the speaker. He had had only one case that developed cancer of the cervix subsequent to supravaginal amputation, but certainly it was a question that we should go into very carefully as to whether there is any appreciable disease of the cervix. He could not agree with those who say that panhysterectomy is as easy as a supravaginal amputation. He thought it is much more difficult.

The speaker said that he most thoroughly wanted to second what the doctor had intimated and said in his paper, and that is, that as a rule he believed all fibroids are better out than in, and he believed the dangers of a hysterectomy, as we now do it, is very little more than that of an ordinary ovariectomy, and he believed that fibroids as a class are almost as malignant, in the sense that they destroy life ultimately, as ovarian cysts.

DR. G. McNAUGHTON said that eight or ten years ago the first paper that he presented to the Society had to do with fibroids. He had been in the dispensary and had noticed these cases, and had remained in the clinic long enough to see quite a number of them develop fibroids. As Dr. Baldwin said, anteflexion is a cause of many cases of sterility, and sterile women frequently develop fibroids. Dr. McNaughton has seen many of these cases since that time, and has been able in quite a number of them to prognosticate the development of fibroid tumors of the uterus. A case in point occurred this winter. A woman who was seen eight or ten years ago and curetted for excessive menstruation, was told if she did not become pregnant she would likely have a fibroid tumor. At that time it was impossible to detect anything of the sort, but from previous experience he felt justified in making that statement. She was anxious to become pregnant, and last summer presented herself at his office with both fibroid and pregnancy. The speaker believed in this case that the replacement of the tissues after the development of a fibroid in an anteflexed uterus favored pregnancy. The anatomical changes that occur with a growing fibroid allow them to become pregnant, and that explains some of these cases of pregnancy occurring in fibroid uteri late in life.



This woman suffered a good deal all summer. A growth on the left side especially was prominent. The case was improperly diagnosed as a cross presentation, and efforts were made to correct the history. In spite of this she carried the baby. It was born at 7½ months and died. The fibroid has apparently disappeared.

As to the development of fibroids in young women, he should be inclined to disagree with the conclusion of Dr. Polak in that respect. If these young women have a tendency to develop fibroid early, if there is any malignant tendency whatever, he should expect to see it develop in these young women, and it is a question whether they should not have their uteri removed. He thought that should be very carefully considered.

The doctor spoke of fibroids occurring in women under 25. Showing that tendency at such an early age, he should think it might show a decided tendency to malignancy, and it is a question whether the uterus should not be removed instead of a myomectomy.

These changes in the arteries may be found in almost any case of fibroid. They have sclerosed arteries in and about the uterus.

The heart complications are common. He had an experience last summer in a woman who had a large fibroid tumor. It was removed with a great deal of difficulty. There was not much blood lost, and he supposed she was in excellent post-operative condition. As she was about to be removed to her room she suddenly died. It might have been a thrombus. The woman had suffered from hemorrhage, but was in the best condition possible to get her, and it was an attempt to save her life by operation.

The speaker had seen gangrene occur after hysterectomy, finally necessitating an amputation of the leg just below the knee; the hysterectomy was imperative. It would have been death to the woman not to have operated, because the fibroid, which had its origin in the body of the uterus, had worked itself down in the cervical region and dipped through the cervical mucous membrane. She had very severe hemorrhages, and finally got better after a prolonged convalescence, and is in pretty fair condition.

There is another point that might be noted. In connection with uteri that are anteflexed, we often see that in young women who are apparently unusually well constructed, but they are anemic, and they are in a condition that is described as chloritic. There is something about them that we do not understand; there may be some poison in connection with that kind of a

case. We see these girls with good frames, plenty of deposit of fat and well rounded figures, but with small viscera and small circulatory apparatus, and he thought that is the kind of person that invites this condition.

He has done myomectomy, and did not recall having to do a second operation. He believed it is quite possible when you are in the peritoneal cavity to make a palpation of the uterus and detect there a small deposit of fibroid in the uterus by pressing the uterus, and if you find that they are disseminated and there are quite a number, then he would say the uterus ought to come out. Myomectomy is a rather rare operation with him.

DR. C. H. TAG spoke of a case he first saw in 1897 in a patient 43 years old. A small mass was made out in the left broad ligament. She was seen again in 1900, and the mass was diagnosed as an inoperable fibroid. She was suffering with severe pain in the left side and frequent urination. Her physician put her on morphine treatment for the relief of the pain, and converted her into a morphine habitue. In 1904 she was able to get back to her ordinary work, and an examination of the pelvis did not reveal any mass on that left side. She has been cured of her morphine habit.

The second case was a woman 38 years of age, who came into the hospital in 1899 for about the same condition, pain in the abdomen, constipation and difficult urination. A median incision showed a fibroid of the uterus adherent to the bladder and intestine. The case was considered inoperable and the abdomen closed. She was discharged two weeks after the operation. In 1904 she returned to the hospital to visit another patient there, and reports that she is practically well, no pain, and has had no trouble of any kind for over two years. The examination revealed a uterus slightly enlarged, but not particularly hard.

DR. W. B. CHASE said that there have been some changes in the opinions of men who have been doing myomectomy for years, that it is not the simple operation it was thought to be; the risks of infection and thrombosis are matters which are not to be taken lightly. Those which are subperitoneal, and the removal of which involves interfering with the structure of the uterus itself, are not devoid of danger, and just when the element of sepsis will come in and undo your work you never can tell.

The series of cases which the doctor has had are a goodly number, and the results are highly

satisfactory. One unfavorable complication he mentioned in several of these cases, the involvement of the veins, is unfortunate, but the speaker did not know but that this is unavoidable.

The question of whether the ovary should be left or not, he thought has been covered in a satisfactory manner. He thought there are good and substantial reasons when we remove the uterus, that one or a part of the healthy ovaries should be left. It mitigates those changes which add to the discomfort of the patient. Premature menopause is a matter sometimes of serious difficulty, and the suffering long continued is a matter, if possible, to be avoided.

Dr. Chase said that in all these cases he did a supravaginal amputation, and none of these cases have developed any disease of the cervix. Doubtless what Dr. Baldwin said is true, that it is more difficult and prolonged and involves more risk to do a panhysterectomy than to do a supravaginal amputation, but he had seen in cases of fibroma involving the fundus and other portions of the uterus, such an evident involvement of the cervix, that he did not feel justified in leaving any portion of the cervix. It will be interesting in Dr. Polak's cases to know whether any of these developed a new fibroma of the cervix or any evidence of malignant disease subsequently appeared.

Dr. J. C. MacEvitt said there was one clinical point the doctor did not mention, and that is a condition that fibrous tumors will often leave a patient in before being brought to the surgeon, that is the prostration and pernicious anemia due to the loss of blood.

Some four months ago a patient was brought to the hospital in an ambulance so weak that she could not stand, and with all the appearances of exsanguination due to fibroid. Her condition was such that if operated on at that time she would have died. The hemorrhages for four months previously were almost daily. The query was in what manner this hemorrhage could be stopped and prepare her for operation. It was a therapeutic measure that he had never adopted before, or had he heard of. There is a paste known as Byrne's paste, composed of Ergotin, Salicylic Acid, Iodine and Carbolic Acid. It has a mildly escharotic effect. In the belief that this hemorrhage was due to a degeneration of the fibroid involving the mucosa with an ulceration of the mucosa, he placed the patient on the table and dilated the cervix and inserted about a dram of the paste through a canula. From the time that that paste was introduced until six weeks

afterward, she had no hemorrhage whatever. Under general tonic treatment her appetite returned. After six weeks he felt perfectly free to do an operation, notwithstanding the presence of a cardiac lesion, a loud mitral murmur. The operation was performed, and the woman last week left the hospital.

In the interim he has seen two cases of metrorrhagia that he believed to be due to submucous fibroid of a small size, because bimanual palpation of the uterus does not show that the uterus is much enlarged. He resorted to this same paste, and she had no hemorrhage for a month until the appearance of the menses. He made a second application last week. He thought this paste would be useful in a limited number of cases.

The speaker had not found the black picture painted by other speakers in regard to fibroidal disease in the young or middle aged where grave symptoms exist. He has a number of cases under observation at the present time in women under 35 where there are subperitoneal fibroids. The uterus is not particularly enlarged. He has not informed his patients that these tumors are present and they know nothing about them. Their general health is good, they have had some little backache, dysmenorrhea and leucorrhea, but not enough to affect their general condition. He did not feel quite justified in advocating a hysterectomy. There is such a thing as absorption of these fibroids; they do sometimes disappear.

The speaker had under observation a young married woman in whom the fibroid was marked. She had menorrhagia with it, and he had suggested for a period of three years that she would permit the removal of the growth. She would not submit to operation, but afterward became pregnant. She was safely delivered without trouble. He has examined her since, and there is no fibroid there. The uterus is normal in size.

He formerly did a number of myomectomies, but does not do them now. Unless the fibroid is pedunculated he believed in a hysterectomy. He could not do a panhysterectomy as readily or with as much safety to the patient as a supravaginal hysterectomy.

Dr. W. J. Corcoran said that the mention of thrombosis occurring after hysterectomy for fibroids and the subject of pregnancy in connection occurred in three cases he had. The first case was a young unmarried woman he operated on ten years ago for fibroids. He removed the uterus and found a foetus inside of it. She made an uneventful recovery, except her life was jeop-



ardized to an alarming extent by frequent and profuse hemorrhages from the bowel.

The next one was some years afterward, where he operated on a pregnant uterus with multiple large fibroids. The pregnancy was 7½ months. He believed the child to be dead and did a hysterectomy. She had violent and profuse hemorrhages from the rectum afterward. Two or three weeks later, as she was ready to go home, she died suddenly.

The third case was a woman who had been married thirteen years, never pregnant, was sent to him to be operated on for a fibroid tumor. In the examination which he made at the hospital preparatory to operation, the cervix felt big to him. She was sent to him for profuse hemorrhage, more than she had had before, and the cervix felt soft and represented to him pregnancy. He postponed doing anything, as he expected she was having an incomplete miscarriage. The physician in the case ridiculed the diagnosis. A consultation was called and the placenta removed. She was operated on subsequently and had the same experience in hemorrhage from the rectum.

That was his personal experience, and all of them acted in the same way, except in one, where death occurred as a result.

DR. R. H. POMEROY stated that he had had a number of experiences with fibroids in connection with various stages of pregnancy, and that he is inclined towards recognizing a distinct usefulness in myomectomy under certain limitations, chiefly the one suggested by Dr. Polak, the desire for a possibility of pregnancy on the part of the patient. He has had two very satisfactory experiences in the last five years, one in which the patient had been married six or seven years and there had been no pregnancy. There was urgent desire for a child. The patient had been to one surgeon, who reported that she had an acute anteversion, and he curetted and dilated in the expectation of inducing pregnancy. No pregnancy occurred. The speaker satisfied himself that the patient had some fibroid in the uterus, probably interstitial, as the uterus felt almost large enough, with no pregnancy present, for a three months' pregnancy; but the fundus was hard.

He did laparotomy on that patient, and removed five interstitial fibroids varying from the size of a walnut to a hen's egg, and she is now in her second pregnancy. He has not been able to detect any return of the fibroids in that case.

The speaker also had an experience in a patient who came to him for a retroversion that was un-

managable by pessary treatment. She had one previous child. He was convinced there was a fibroid in the fundus of the uterus, which made it impossible to hold it up out of the cavity of the pelvis, and the laparotomy revealed a calcareous interstitial fibroid in the fundus about the size of a goose egg, which was removed and the uterus suspended. Pregnancy occurred the following year, which went to term without difficulty or complications, and the uterus involuted and remained in good position.

He merely referred to these two cases to show that the question of the relation of pregnancy to fibroid and the treatment by myomectomy is a matter that must be taken into consideration.

The fact that the development of fibroids must be watched over such a long period of time, in order to have any authentic and certain records as to their causation and natural history, makes it extremely difficult to get any positive knowledge of the habits of these neoplasms.

The speaker said he had a very positive feeling that cases of fibroid that are diagnosed as fibroids and disappear without operation are mythical. He had not been able to understand how anything as dense and encapsulated as a fibroid could disappear. There ought to be some other positive proof than the histories of these cases. Many diffuse plastic exudates felt by bimanual palpation as if they must be fibroids, yet such will be totally absorbed in time.

DR. J. O. POLAK, in closing, said that in answer to Dr. Maddren's and Dr. Baldwin's question, as to how many women out of the 12 whom he had operated on did not return after myomectomy. There were five, three were lost sight of, two are well as far as any examination can reveal, and one of these twelve women had become pregnant.

Regarding the method of operating in these cases, all but one have had supravaginal amputation of the uterus, for the reason that the cervix in none of these patients was such as to give us the feeling that we were leaving something that should not be left. The total pregnancies in the 38 patients were 21, and only one of these women had borne any number of children and the cervixes were in good condition. The only case in which he did a panhysterectomy was one in which there was a fibroid low down in the cervix, so low down that he could not do a supracervical amputation.

As to the method of treating the broad ligament, he tried to tie the uterine and the ovarian individually. He did not always succeed, but the

cases in which he had the nicest technique were the ones in which thrombosis had developed.

Most of the deaths from fibroids, in his experience, came from cardiac changes. He agreed with Dr. Baldwin that he had not seen shock cause death, except in the one case he had reported, where the patient actually died from shock, because she was under the anesthetic too long. It was a case with dense adhesions.

In regard to sarcomatous degeneration, from statistics he understood it develops in only 2% of fibroids. These are the statistics of Noble and J. N. West. Noble, of Philadelphia, says he has a mortality of 1% in hysterectomy for fibroids, but take the cases as they come, the mortality will amount to about 5%.

Regarding adeno-carcinoma, possibly he did not make himself clear on that. The class of cases that degenerate into adeno-carcinoma are submucous myomata, and in these cases the growth occurs on the endometrium as a result of the endometrial change, as a result of the proximity of the tumor, or it comes from the degeneration of the tumor, but it is almost as frequent in that class of tumor as a sarcomatous degeneration is in a fibroid.

One other point was brought up, *i. e.*, that the speaker had made the statement that myomectomy is more dangerous than hysterectomy. His statement was that in myomectomy in intramural growth encroaching on the endometrium, that is, in the large deep fibroids, where there is a large cavity left close to the endometrium, which is difficult to close up and not have blood clot in the dead space; in such cases sepsis is frequent and thrombosis is frequent. He believes these cases are far more dangerous to treat by myomectomy than by a hysterectomy.

In commenting on Dr. McNaughton's statement that fibroids in young women from the viewpoint of possible malignancy should be the subject of hysterectomy. The position was well taken, because in the young fibroids grow rapidly. He could not, however, satisfy himself that he could feel any one of these nodules in the uterine musculature unless they are distinctly palpable, and in these very cases myomectomy has seemed to stimulate the growth.

In regard to small fibroids, he agreed with Dr. MacEvitt that small fibroids producing no symptoms, but kept under observation, are safe enough, provided they can be kept under observation.

He had not seen any degenerations in the stump of the cervix following supravaginal hysterectomy.

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## THE BROOKLYN PATHOLOGICAL SOCIETY.

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466TH REGULAR MEETING, MARCH 8, 1906.

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The President, H. G. WEBSTER, M.D., in the chair.

PAPER: THE SURGICAL TREATMENT OF CHRONIC INDIGESTION, BY WILLIAM FRANCIS CAMPBELL, M.D.

### *Discussion.*

DR. R. W. WESTBROOK said that he was very much interested in the recital of these cases, because we cannot at the present time hear of too many of them, and there were some things which Dr. Campbell had brought out, which he thought needed impressing pretty strongly.

The subject of chronic appendicitis becomes more and more an interesting subject to him, and he is seeing more and more cases, which he is able to diagnose now, which he was not able to diagnose a few years back; cases of indefinite abdominal pain with constipation and fear of food and weight loss, with no marked localized symptoms; at least frequently when you see them in your office they have only a general abdominal tenderness. Once in a while you will get persistent tenderness about the appendix. Sometimes there is a mucous colitis with that train of symptoms, and those cases which are apparently chronic indigestion or dyspepsia turn out to be cases of chronic appendicitis. They may never have had an acute attack. Some have a doubtful history of an acute attack and the appendix tender and palpable, and in the same cases later he has not been able to find any tenderness at all. The speaker had in mind one case of a rather elderly gentleman, who had lived on shredded wheat and other trash and lost weight exceedingly, he thought some thirty pounds, and he had persistent abdominal uneasiness. Every once in a while he would have some uneasiness in his right iliac fossa, and he had one or two attacks that had been diagnosed indifferently. When Dr. Westbrook first saw him he made a diagnosis of chronic appendicitis following acute attacks and advised operation, but the patient



pleaded that he was too busy and could not be operated on then. The speaker saw him a year later, found him still losing weight, and palpation of the iliac fossa revealed no tenderness or palpable mass. A few days later Dr. Westbrook was called to see the man in an acute attack, and when he removed his appendix he found a thickened, partially obliterated appendix with a good many adhesions about it. After the operation the symptoms cleared up, he gained twenty-five or thirty pounds, and he is now in good condition. That case, the speaker thought interesting, because he made a diagnosis of appendicitis at first, and then all the tenderness and right iliac fossa signs disappeared, but at the same time he had abdominal discomfort and distress, and progressive weight loss and fear of food. He became neurasthenic. It was interesting to see how his neurasthenia and nervous symptoms cleared up. Dr. Westbrook said that all who see much of appendicitis become as much interested in the chronic form as we formerly were in acute appendicitis. A great many of these cases of dyspepsia, he said, as Dr. Campbell has shown, are cases of chronic appendicitis with not infrequently no history of acute attacks.

The speaker was interested in hearing the report of the gall-stone cases. He was rather skeptical about those cases that are reported with the gall bladder filled with thick, ropy mucus. He had not seen a case where he felt that the symptoms were caused by diseased bile, unless there was also a marked evidence of cholecystitis too. If you get a thin, paper-like, blue gall-bladder, it is not a gall-bladder to open up, but if you get a thicker, whitish gall-bladder, especially with adhesions about it, then you know you have a case of cholecystitis, and if you have that kind of gall-bladder with persistent, symptoms with no stones he thought that gall-bladder should be removed. They are not cases that can be drained as successfully as those with stones. He thought the cases where stones are present should be drained, that being the normal operation where the cystic duct is patent and stones are present, but he did not think that the mere drainage of cases that present thick, ropy mucus is so likely to cure the symptoms.

The speaker also was interested in hearing Dr. Campbell's experience of those cases of extreme hemorrhage with gastric ulcer. That is where we have to clinch things. Dr. Westbrook said he heard recently of a case where a man has become so exsanguinated that he cannot raise his hand, and yet the doctor—an excellent man—

does not seem to think there is operative relief for this case. The patient had a similar hemorrhage several years ago. He has a chronic ulcer, and the speaker thought it was of the duodenum, because much blood has come by rectum and the man has a past history of tarry stools. These cases, he said, are surgical and have to be operated on. The prognosis is desperate; they may go on for quite a number of years, but sooner or later these cases are going to get into trouble. Dr. Westbrook also has under observation a man who has been almost exsanguinated with a duodenal ulcer, but he will not be operated on. The laity, too, should be instructed in these matters. A gastro-enterostomy in both these cases would probably cure the patients.

The speaker said he was likewise interested in hearing of the case in Dr. Bristow's clinic where cauterization of an ulcer was done. That is rather novel, and he should think if cauterization were done with an added gastro-enterostomy to put the stomach more at rest, that it would offer more hope. Gastro-enterostomy, he thought, is the essential treatment.

DR. H. W. LINCOLN said that there was no question but that the cases which had been cited by the reader of the paper were surgical, although he did not know that they had been proven so by exploratory incision, or whether diagnoses were made prior to incision. In a good many of these cases, he said, that you cannot be sure that you are going to find a malignant disease or you cannot be sure what you are going to find, you are pretty positive that the patients are not doing well medicinally after investigation of the secretion, motility, etc., of the stomach. If they do not do well, he thought, the risk is minimized by exploratory incision, and he thought the results are very often more than to be hoped for. He recollected one case that was diagnosed variously as gall-bladder trouble, malignancy, etc. He saw the case, did not make a diagnosis, but recommended an exploratory incision. There was nothing found, but the pain immediately subsided and remained so. He saw the lady two years afterward and there was no return of any symptoms whatever.

On the other hand, the speaker said, there is another phase to this question, and that is the ability to get these people to submit to exploratory incision. Even in malignant disease, sometimes he had found that it is not the easiest thing in the world to get a patient to have the abdomen opened. He saw a case three weeks ago in consultation, and there was no question as to what

the trouble was. He urged operation, but the patient was allowed to die without operation.

In the same line of advising of exploratory incision, sometimes, quite frequently in fact, patients simply reward us for our trouble by leaving us and going elsewhere, and we do not know how they come out. He saw a case of partial obstruction of the cardia some time ago, with secretion of HCl perfectly normal; there was also stagnation indicating some trouble of the pylorus or an atonic condition. He spent a good deal of time giving the man the only advice that he could, viz., exploratory incision. The patient did not return. He reported that he had found someone who would "cure" him without surgical interference.

There is one condition, Dr. Lincoln said, which exploratory incision will often relieve, and that is the condition of various adhesions, which we know are formed around the pylorus—the various pains and aches which may be relieved by exploratory incision.

The speaker wanted to ask the opinion of those present as to the advisability of operative interference where the malignant growth does not encroach either upon the pylorus or cardia; some argue for and some against operation. This question refers to these cases which are beyond *radical operation*.

DR. T. B. SPENCE stated that it seemed to him that one very good result of the paper was the bringing of the physician and surgeon in closer contact. It is the fault of both many times, he believed, that cases are not seen by them together. Our interest to-night, Dr. Spence said, has jumped into the breach in a very handsome way, and it hardly seemed fitting for the surgeon to say anything about recommending these cases to operation after his words. However, he thought, many times the persistence of these symptoms that patients suffer from many months, possibly years, must drive some of our friends who are looking after these cases to desperation, and the suggestion of exploration or anything else that may get them out of their hands for a few weeks must be a very great relief.

The speaker said that the cases were all of interest. He presumed that those of appendicitis are the ones that occur to us most frequently. He was sure that in all this class of cases he found the appendix most often to blame. He operated on a case only two days ago that might be an exact counterpart of the case that Dr. Campbell had cited.

He saw one case a few months ago with an added condition which was unlooked for and unexpected. In that case no history of an acute attack of appendicitis could be gained and the symptoms extended over a space of time of four years. A slightly movable right kidney had been found, and attempts were made to improve the condition by various supports to the abdomen without any avail. It seemed to him that there was hardly enough to account for her symptoms there, but he did believe that he might find something if he explored. An appendix was found, which showed evidence of a chronic inflammatory condition, and across the ascending colon just above the sigmoid two bands of adhesions were found, one constricting the colon, so as to shut off perhaps one-half to two-thirds of its lumen, and yet the woman never had showed any signs of an intestinal obstruction. That would come under the head of adhesions that Dr. Lincoln spoke of. The speaker felt sure that the mere cutting away of the adhesions was what cured his patient, although the kidney was fixed at the same time.

Gall-bladder cases have been mentioned in medical and surgical literature so much of late that everybody knows about them, and yet he would venture to say that we all see these cases and fail to recognize the exact condition. The symptoms are many times so slight, so persistent and so obscure that it requires a great deal of courage to go into the abdomen, and he believed that we will find many of these cases will be cured by opening the gall-bladder.

The speaker presumed that Dr. Westbrook was right in his statement about the advisability as to the removal of the gall-bladder, and yet in his experience he had never seen any of these cases fail to get a cure by drainage. He presumed they occurred, but it had never fallen to his lot to see such a case, and he had not become a warm advocate of removal of the gall-bladder.

DR. J. S. WIGHT said he would like to add two cases of gastric hemorrhage to the ones Dr. Westbrook had spoken of by way of emphasizing the importance of the surgical treatment. They refused operation and died within 24 hours. He had made it a rule that all cases that give the stagnation test as well as of chronic indigestion with no hydrochloric acid and emaciation should be explored.

(To be continued.)



# Brooklyn Medical Journal.

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## DISPENSARIES FOR THE SPECIAL TREATMENT OF TUBERCULOSIS.

As was noted in this column some months ago, the officers of the Health Department in the Borough of Brooklyn attempted without success to institute a number of dispensaries for the treatment of tuberculosis. The plan was nullified by the decision of the courts that such establishments would be a menace to the health of those sections of the city in which the proposed dispensaries were to be located by reason of a resultant congregation of an undue number of consumptives at those places.

The courts and the people may both be exonerated from selfish intent or from the effort to act otherwise than in a manner to protect the community from what they considered unhygienic institutions which might prove inimical to the neighborhoods in which they were to have been established. So far as the public had then been generally enlightened the position was probably justified.

In a very different position, however, is the case of the community which would aim to treat its tuberculosis (poor) patients in special dispensaries, and the most convincing evidence of their beneficial influence is to be found in the series of letters which has been collected by Dr. Raymond and presented by him in this issue of the JOURNAL. The plan has been tried in other communities, and the experiments seem to have been always successful. The patients who pre-

sent themselves at these institutions have been found most tractable and have put into immediate practice the oral and demonstrated teaching which they have received. It would seem that benefits have accrued to the patients and to the community at large where they have been established. Committees consisting of both physicians and laymen have had the matter in charge and the work has been accomplished with credit to the individuals directly, and the communities indirectly, concerned.

It behooves Brooklyn that she should no longer be behind hand in what to physicians seems a real duty, and it is confidently predicted that with the further knowledge of the work which the laity will shortly obtain, no further obstruction will be placed in the way of an early establishment of these needed institutions in our city.

If any proof is needed by the laity to put at rest doubts concerning the entirely beneficent influence of a public dispensary for the treatment of tuberculosis, the series of letters written by a large number of persons and sent to Dr. Raymond should be convincing. Published in the public press they would certainly allay the fears of those who now believe that the dispensaries would prove centers of infection. The letters show the deep interest which other communities are taking in the question of the prevention of tuberculosis. The collection contains a mass of illuminating educational data which the JOURNAL is pleased to present in its pages.

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## CONCERNING THE ORTHOGRAPHY OF THE BACTERIA.

The authors of works on botany and zoölogy invariably express the scientific names of species of plants and animals in italics; the common or English names in Roman letters.

We suggest that this is a good rule for physicians to follow in the spelling of the names of species of bacteria. For the most part the bacteria are as yet without other than the Latin names given them by their discoverers or describers, which, according to the law of priority, always remain the same. To spell the names in ordinary characters without italicising would signify that they had become Anglicised. This the Latin or scientific name cannot properly become since these names have been given them for the special purpose of characterizing them among scientific men of every tongue the world over. There is no need, though there is no objection, to naming the bacteria in all cases in

English phraseology as well, unless for the purpose of giving them briefer or more familiar names, and this would also often lead to confusion. As to capitalizing the scientific names, medical men might properly follow the lead of the botanists. These invariably give to the generic or first name a capital, and in most instances to the specific or last name a small letter. The exceptions are those specific names which have their origin in a proper name, as when named after an individual or a country.

Modern zoölogists invariably give the specific name a beginning small letter whether it is derived from a proper name or not, and for the sake of uniformity this plan has advantages. In fact we believe botanists might follow this method with an advantage in simplification.

The medical man secures the regard of botanists and zoölogists by following long established scientific custom in giving scientific names in italics, the generic name capitalized and the specific name a beginning small letter, unless its derivation is from a proper name.

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## MEDICAL NEWS.

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EDITED BY CLARENCE REGINALD HYDE, M.D.

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*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

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Dr. Edward E. Cornwall has removed to 1239 Pacific Street.

Dr. Norman Philip Geis has removed to 1325 Pacific Street.

Dr. Charles Scudder Pool announces his removal to 147 Clinton Street.

Dr. J. C. Medd has removed to 210 Garfield Place.

The monument at Prospect Park Plaza, in memory of the late Alexander J. C. Skene, M.D., LL.D., was unveiled to the public with appropriate ceremonies on the afternoon of May fifth.

The State Board of Regents has made the following appointments to the State Board of Medical Examiners: From the State Medical Society, Dr. William V. Potter, of Buf-

falo; Dr. William S. Ely, of Rochester, and Dr. Maurice J. Lewi, of New York City, all reappointed, and Dr. Arthur W. Booth, of Elmira, to fill the unexpired term of Dr. George R. Fowler, deceased; from the Homeopathic Medical Society, Dr. J. M. Lee, of Rochester; Dr. J. W. Candee, of Syracuse, and Dr. G. E. Gorham, of Albany, all reappointed; from the State Eclectic Society, Dr. L. H. Smith, of Buffalo; Dr. G. W. Sutton, of Bath, and Dr. M. H. Nichols, of Worcester, all reappointed. Anna L. Alline, of New York City, was appointed a member of the State Board of Nurses' Examiners.

The annual meeting of the Suffolk County Medical Society was held at the Griffin House, Riverhead, L. I., Thursday, April 26, 1906. Dr. W. H. Ross delivered the President's address. Dr. W. A. Baker, of Islip, presented "The Milk Problem from a Sanitary Standpoint;" Dr. Ralph Waldo, "Procidencia Uteri;" Dr. G. Morgan Muren, "Treatment of Inoperable Conditions of the Prostate."

The meeting of the Suffolk County Medical Society and the Associated Physicians of Long Island will be held conjointly on July 22, 1906. At this meeting the Suffolk County Society will celebrate its one hundred anniversary.

Dr. William S. Hubbard, of 97 Halsey Street, has removed to 1138 Bergen Street.

Dr. William B. Brinsmade, of 117 Montague Street, had his wrist broken and dislocated by a blow from the crank-lever of his automobile.

The new Woman's Hospital, on 110th Street, Manhattan, costing nearly \$1,000,000, will be ready to receive patients October 1, 1906. The Woman's Hospital Society intends to commemorate the event by a special meeting of its alumni in the hospital building, at which a scientific session will be held. It is intended to have a number of distinguished laymen and medical men present on this notable occasion.

Dr. Walter B. Chase and Dr. Carroll Chase have removed to 936 St. Marks Avenue.

The Laetare Medal, which is annually presented to some distinguished Catholic layman, has been awarded this year to Dr. Francis J. Quinlan, of 33 West 38th Street, New York. Presentation will be made by President John Cavanaugh, of Notre Dame University, before the Catholic Club of New York. Among distinguished Americans who have received medals are: Secretary Bonaparte, of the Navy; Bourke Cochran, Augustin Daly, General Rosecrans, Josies Sadler, William Anahan, Dr. Murphy, William Bronson and W. P. Breem. Dr. Quin-



lan is widely known as an inventor of medical instruments and an author and surgeon. He is a graduate from St. Francis Xavier College, class of '74.

The term "doctor" was invented in the twelfth century, about the time of the first establishment of universities. The first person upon whom this title was conferred was Irnerius, a professor of law at Bologna University. The title was created by Emperor Lohaire II, but was suggested by Irnerius himself. The term extended to the faculty of theology, and was first given by the University of Paris to Peter Lombard, the famous theologian. In 1329 the College of Asti conferred the first title of doctor of medicine upon William Gordenio.—*Exchange*.

Dr. Carl Beck, the originator and President of the Society of Old German Students, was recently the guest of honor at a dinner of that Society in the wine room of the Hotel Astor. A telegram expressing regret was received from Baron Speck von Sternburg. During the evening a silver vase was presented to Dr. Beck, and then a toast drunk in his honor.

The Brooklyn Dispensary, at 11 Tillary Street, opened a clinic on April 2 for tuberculosis patients, as did also the dispensary of the Williamsburgh Hospital, at South Third Street and Bedford Avenue. The hours at the Brooklyn Dispensary are from 2 to 4 P. M. every day except Sunday; at the Williamsburgh Dispensary, from 9 to 11 A. M., Monday, Wednesday and Friday. These dispensaries will report to the Bureau of Charities the names of all tuberculosis patients needing a diet of milk and eggs, and if they are not able to pay, the bureau will undertake to see that such diet is supplied.

The announcement is made by the Postmaster-General that fifty-two illegal "medical offices" located in New York and Brooklyn have been practically put out of business through the efforts of the postmasters in the two cities and inspectors assigned to the work.

The action taken at New York and Brooklyn is in line with the efforts made by Postmaster-General Cortelyou in Boston and Philadelphia to enforce the law against this class of criminal concerns. In March last, after considerable work, evidence was obtained which enabled the department to close the mails to about thirty of this kind of concerns operating in Boston. The Postmaster was directed to refuse the delivery of mail to such parties, and the publishers of the newspapers in that city were advised of the il-

legal character of their advertisements and informed that future issues of such papers carrying the offensive advertisements would be excluded under the law from the use of the mails.

William Jay Schieffelin, the wholesale druggist, declared at a hearing at Albany, that there were drug stores in New York City which gave away cocaine for the purpose of developing the habit and creating customers. He says that 20 per cent. of the cocaine manufactured in this country is converted to illicit uses. His remarks suggest that the public is insufficiently protected against unscrupulous druggists.

The Williamsburgh Hospital announces the retirement of Colonel William A. Stokes as President of the Board of Directors, and the election of the Rev. Newell W. Wells as his successor. Mr. J. C. Kerr was elected Vice-President, Dr. William E. Butler, Treasurer, and Dr. John O. Polak, Secretary. The following were elected to the Board of Directors for three years: Col. W. A. Stokes, Dr. William E. Butler, Rev. Newell W. Wells, Dr. John O. Polak, Dr. Robert J. Morrison, Dr. L. A. McClelland, Dr. Ralph Pomeroy, John C. Kerr and John McKee; for two years: T. E. Rush, J. H. Mowen, D. M. Munger, Henry A. Powell, H. R. King, Magistrate E. Gaston Higginbotham, J. Davgier, Messrs Raymond and Meacham; for one year, Dr. J. G. Dickert, Dr. E. A. Parker, Mr. Thornet, Dr. Glenworth, R. Butler, William Vogel, C. H. McGee, Dr. Norman P. Geis, John Gelhardt, Jr., and Hugh De Haven.

Some interesting statistics were given by Dr. W. E. Butler in his annual report. He showed that since the first of this year sufficient money had been raised to wipe out all the old debts. Nearly \$10,000 has been paid out, and there is not an outstanding debt against the Hospital.

It was decided to increase the number of internes to four. A pharmacist will also be appointed for the drug room. The babies' ward was opened May first.

Dr. Alonzo Tredwell was appointed an associate physician, and Dr. Willard G. Reynolds, assistant ophthalmologist.

New dispensary appointments are: Eye clinic, Drs. Joiner and Farewell; medical clinic, Drs. Johnson and Corolon; surgical clinic, Drs. Davis and Dooling; gynecological clinic, Drs. Lubrecht and Dorn; nose and throat clinic, Drs. Hancock and Schofield; children's clinic, Drs. Meyer and De Lamotte.

At a recent meeting of the Unity Club, at Unity Church, on Irving Place, Dr. James P.

Warbasse presided. The program was as follows: "The Social Evil," by Dr. Edward L. Keyes, Jr.; "The Venereal Peril," by Dr. George Morgan Muren; "The Remedy," by Dr. Henry G. Webster. A regular society for the discussion and prevention of venereal disease exists to-day in Manhattan, and numbers among its members some of that borough's most influential medical men.

Fourteen nurses were graduated from the Training School for Nurses of the Long Island College Hospital at the graduating exercises held May second. A reception at the Polhemus Memorial Clinic followed.

### BOOK REVIEWS.

**THE PHYSIOLOGICAL FEEDING OF INFANTS.** A Practical Handbook of Infant Feeding, and Key to the "Physiological Nursery Chart." By Eric Pritchard, M.A., M.D., M.R.C.P. *Second Edition.* Chicago, W. T. Keener & Co., 1904. viii, 202 pp. 8vo. Price: Cloth, \$1.50.

This small book is an attempt to describe in simple language the method he has found practical in the percentage feeding of infants. He starts out to simplify the process of home modification, but ends with rather complicated tables from which a trained nurse or intelligent mother can prepare a food of almost any required percentage composition. He ends with furnishing forty formulæ or recipes for feeding infants, but does not give directions for using them. Much useful information is given on the general care of infants and a long chapter on the "Physiology and Development of Infancy." E. H. B.

**NEUROTIC DISORDERS OF CHILDHOOD:** Including a Study of Auto and Intestinal Intoxications, Chronic Anemia, Fever, Eclampsia, Epilepsy, Migraine, Chorea, Hysteria, Asthma, etc. By B. K. Rachford, M.D. N. Y., E. B. Treat & Co., 1905. ii, 7-440 pp. 8vo. Price: Cloth, \$2.75.

This book is not a systematic treatise of the diseases of the nervous system in children, but a very readable discussion of some nervous disturbances of childhood dependent upon disturbances in metabolism or disorders of the gastro-intestinal canal. The author has become well known from his writings on auto-intoxication, migraine and purin intoxication. These subjects and the nervous disorders supposed to result from toxins developed within the body are thoroughly discussed in this book. Those who wish to become informed as to the relation between auto-toxins and neurotic disorders will find in this book an excellent discussion of these relations. The author's style is clear and he handles the subjects in a most interesting manner. It is well worth reading. E. H. B.

**A TEXT-BOOK OF PHYSIOLOGICAL CHEMISTRY FOR STUDENTS OF MEDICINE.** By John H. Long, M.S., Sc.D. Phil., P. Blakiston's Son & Co., 1905. v-viii, 424 pp. 11. 8vo. Price: Cloth, \$2.50.

In this text-book the author has attempted to prepare a brief account of the principles of physiological chemistry for the use of medical students. In doing so he has been obliged to consider many substances which properly belong to pure organic chemistry and some other subjects which are usually taught in physiology. The difficulties of selecting the proper subjects for classification under the heading of physiological chemistry are apparent to every teacher. Professor Long has made a judicious selection of subjects and has treated them in as simple a manner as possible. It ought to meet with favor as an elementary text-book on this increasingly important subject. E. H. B.

**THE INFLUENCE OF GROWTH ON CONGENITAL AND ACQUIRED DEFORMITIES.** By A. B. Judson, A.M., M.D. N. Y., W. Wood & Co., 1905. x, 276 pp. 12mo.

Dr. Judson has brought out a very readable book—not to the specialist only, but one that is both instructive and interesting to the general practitioner. It is quite in contrast to much of the medical literature, in that the subject is handled in a decidedly interesting and original way. It does not pretend to be a complete treatise on orthopedics, but its *raison d'être* seems to be to emphasize the importance of so applying the mechanical treatment that the forces of nature—especially growth—may best be utilized. This note runs through the discussion of the treatment of the more common joint lesions. Many practical points in brace construction are suggested, and along with them the influence which growth may be expected to play. The text is sufficiently illustrated to make clear the author's ideas.

CHARLES DWIGHT NAPIER.

**THE PRINCIPLES OF BACTERIOLOGY: A Practical Manual for Students and Physicians.** By A. C. Abbott, M.D. *Seventh Edition, Enlarged and Thoroughly Revised.* Phil. and N. Y., Lea Bros. & Co., 1905. xi, 17-589 pp., 8vo. Price: Cloth, \$2.75.

The author is to be congratulated upon the success of his manual, which is not only evidenced by the great worth of its contents; but equally from the fact that we have before us for review the seventh edition.

The arrangement of the chapters is very commendable. The discussion on all subjects considered is clear and plentiful for a manual.

In reading the book we notice several changes in nomenclature.

The author follows Migula's ideas in naming many of the bacteria. We notice *micrococcus aureus* is given the preference over *staphylococcus pyogenes aureus*. *Micrococcus pyogenes*, which stands for *staphylococcus pyogenes albus*, might be confused with *streptococcus pyogenes*.

When one starts to read about *pseudomonas æruginosa*, one's first thought is that a new organism has been discovered; but it is simply a revival of an ancient name for *bacillus pyocyaneus*. To close with one more out of several other changes in nomenclature, we notice the preference is given to *bacterium diphtheria* in the title of the chapter; but the author is not consistent in that throughout the discussion on diphtheria, the author calls the organism *bacillus diphtheria* quite as much as *bacterium diphtheria*.

We wonder what, if anything, is gained by these digressions.

**CHRISTIANITY AND SEX PROBLEMS.** By Hugh Northcote, M.A. Phil., F. A. Davis Co., 1906. 157 pp., 8vo. Price: Cloth, \$2.00, net.

This work is the conscientious effort of a man of good intentions to elucidate for the reader certain phases of the sexual relationship. We should suppose the author to be a clergyman of the English Church; yet, contrary to usual solutions of these problems as pointed out by churchmen, there is little to criticise. The discussions are high-minded and intelligent. Regarding the need for such books, we suppose the publishers are good judges. To a mind untrained to work out for itself every-day problems, we regard it as a probably valuable guide, though the family physician is a better mentor. It is a sane contribution to the literature of the subject, and we regard its guidings in the main as thoroughly practical.

**EPITELIOMAS DE LA FARINGE (Tesis Doctoral).** Por D. Fernando Sánchez Carrasco. Sevilla, Girones, 1905. 42 pp., 8vo.

In this treatise of 42 pages the author has devoted the first 32 to general considerations, including the anatomy of the pharynx and the details of symptomatology and treatment of epithelioma. The last 10 pages deals with the description and treatment of a case of epithelioma of the pharynx, for which an internal operation was performed.



# BROOKLYN MEDICAL JOURNAL

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No. 6.

## ORIGINAL ARTICLES.

### AN IMPROVED TECHNIQUE FOR OPERATING FOR THE REMOVAL OF HEMORRHOIDS.\*

BY LEWIS S. PILCHER, M.D.

A method of operating for ordinary hemorrhoids of moderate severity, which is simple and seemed to accord with a finer ideal of surgical technique than the more frequently adopted methods by the ligature or by the cautery, is the following:

The sphincter having first been divulsed, the mass to be removed is grasped by a ring forceps and pulled out so as to put the parts at its base well upon the stretch; then a longitudinal incision through the mucous membrane and skin on either side of the cone thus drawn out is made, which passes out onto the skin so as to include as much of it as may be necessary to remove, in order to sufficiently retrench the redundant skin tissue.

Beginning with the apex of this triangular flap of skin, it is dissected up from the deeper tissues to the base of the pile proper; then, into the sulcus produced by this skin elevation and the lateral incisions, an ordinary pair of Kocher's hemostatic forceps is thrust so as to clamp the comparatively narrow pedicle of the tissue left. The portion of the pile that protrudes beyond the clamp is now cut off; then, a ligature is applied by needle passing through a fold of the mucous membrane just beyond the point reached by the clamp. When this is tied, the main part of the blood supply of the parts below is cut off.

The long end of this ligature thread is then carried by the needle as a running suture around the mass in the grasp of the clamp, from within outward, until all of the tissue grasped by the clamp has been included. The clamp is now loosened and withdrawn, and the ligature drawn up tight.

By these manœuvres a complete excision of the pile and a definite and satisfactory closure of the wound by suture is accomplished.

After the close of the operation, after two, three or more masses have been removed in this way, the parts present to inspection simply two

three or more sutured wounds radiating from the anal opening.

In his experience the after-history of cases thus treated has been uniformly smooth, and the simplicity of the method and its completeness as a surgical procedure had commended it to his judgment.

### ARE TUBERCULOSIS CLINICS DANGEROUS TO THE PUBLIC HEALTH?

The following letters reached the JOURNAL after Dr. Raymond's paper bearing the above title had gone to press:

WESTERN RESERVE UNIVERSITY-MEDICAL  
DEPARTMENT.

CLEVELAND, OHIO, April 19, 1906.

*Dear Sir:*—In answer to your letter of the 10th we are glad to inform you that we have had no complaints concerning our tuberculosis clinic either from the people living in its direct neighborhood, from any municipal officer, or indeed, from any source.

Our clinic is located in one of the most thickly populated districts of the city.

We are positive in our opinion that the presence of a tuberculosis dispensary does not endanger the health of the people living in its neighborhood, providing that the necessary precautions are taken and instructions given. We find no difficulty in controlling the patients. We have special facilities for caring for the sputum and we clean and disinfect the dispensary daily. Patients are constantly instructed and the instruction they receive from us makes them more careful elsewhere and this is of great value to the city at large.

I am, very truly,

JOHN H. LAMMAN.

WASHINGTON, D. C., April 20, 1906.

*Dear Sir:*—Your letter of April 10th received. I was very much interested in reading the letter showing the kind of complaint made to the opening of a dispensary for the treatment of tuber-

\*Discussion before the Brooklyn Surgical Society, March 1, 1906.

culosis, and I think that if our experience in Washington is a criterion the complaint is utterly absurd and the objectors if they are considering the welfare of the city as opposed to the welfare of a particular street are very much mistaken in their impressions, to say the least.

Our Dispensary which was established about a year and a half ago, originally in the place to which you wrote, but which removed a year ago to its present quarters in the busiest section of the city and on the chief business street, has been obliged to bear no such complaint and, so far as I know, has been the source of no objection. If I judge correctly from the non-professional standpoint which I am obliged to take, for I am not a physician but merely secretary of the committee, I believe that there is far less danger to the city by having the tuberculosis patients thoroughly instructed and watched, even if they are obliged to travel regularly to a dispensary, than to have these same people at home or abroad utterly uninstructed and not reached by any philanthropic agency. Receiving as we do only ambulatory cases we are prone to believe that if these patients were not walking to the dispensary they would be walking elsewhere, and the fact that they receive the instruction which the doctors, nurses, Associated Charities' agents and others can give them, subsequent to such visits, means that the Dispensary instead of being a source of contamination becomes a most potent influence in the crusade against the infectious disease.

I sent your letter for further answer to the Chief of Clinic in the Dispensary, Dr. Jesse Ramsburgh, The Portner, Washington, D. C.

Trusting that you may be successful in overcoming the opposition made against you, I remain,

Very sincerely yours,  
WALLACE HATCH,  
*Committee Secretary.*

SOUTH ORANGE, N. J.  
April 24, 1906.

Your circular letter requesting an expression of opinion as to the likelihood of the establishment of a dispensary for tuberculosis patients proving a source of danger to persons living in the neighborhood has been referred to me for answer.

In my opinion the location of such a dispensary would most emphatically not increase the dangers of infection in that locality, even if the locality were a closely settled one and the patients were very numerous and ignorant, *unless*

the management of the institution neglected to take proper precautions against the dissemination of infectious material. The rooms used for such a clinic should, of course, be provided with suitable receptacles for sputum, the use of which should be made compulsory; the rooms should be thoroughly cleaned in a proper way immediately after the clinic hour; they should in the warmer months be suitably screened in order to exclude flies. The assembling of patients about the entrance of the building before, during or after the clinic hour should not be permitted. Patients should not only be instructed in the proper way of collecting and destroying their sputum, both at home and abroad, but they should be provided with means of following the instruction and should be visited by nurses to make sure that the instructions were understood and carried out.

As to the dangers from street dust containing dried sputum, I think they have been exaggerated. Few streets are so shut in that they are not to a very great extent disinfected by the action of air, sun-light, rain and the action of saprophytic bacteria. But one real source of danger, it seems to me, is in the freshly deposited sputum, which attracts flies, and is liable to be carried upon their bodies to food exposed for sale in nearby stores. For this reason and for the purpose of general discipline, if for no other reasons, consumptives should be most imperatively instructed to observe exactly the same precautions in the streets as within doors.

Our clinic is not located in a very populous district, and there have been no complaints about it so far.

Very sincerely yours,  
HENRY A. PULSFORD, M.D.

WALLINGFORD, CONN.  
April 24th, 1906.

Our dispensary is situated in one of the most populous sections of the city, and patronized as most dispensaries are by the class of people who have had the least advantages for acquiring knowledge of hygienic precautions in general, I cannot see anything but good in the establishment of a tuberculosis clinic, and those in attendance there, where they have an opportunity to learn the proper precautions as to the disposal of sputum, are certainly far less dangerous to the community at large than the ambulant tuberculosis cases who have no opportunity of learning their needs and duties.

I hold that the chief advantage of such a clinic is to the general residents of the city and not to



the patient, for as you know the home treatment in the poorer homes of this class of people that have to stay at work in order to earn their support while it prolongs life and increases its comfort, is only productive of an occasional cure.

The chief danger in tuberculosis does not arise so much from the ambulant case who expectorates in the streets as it does from the constant infection of tenement houses where sunlight and ventilation are at a minimum by the promiscuous deposit of tuberculous sputum by their inmates, and in reaching these inmates and teaching them the dangers of infection for their family and possibly reinfection of themselves the clinic does a service to the general health of the city that can be done in no other way. Phthisiophobia is perhaps the greatest handicap with which we have to contend, and is I regret to say very often exhibited by people whose intelligence and educational advantages should enable them to really see the subject as it is.

Very truly yours,

DAVID RUSSEL LYMAN.

#### THE ANATOMY AND PATHOLOGY OF INTESTINAL OBSTRUCTION.\*

BY WILLIAM H. RANKIN, M.D.

The cavity of the abdomen is the largest in the body and contains the organs that carry on the important chemico-physiological processes in the human economy. Besides the stomach, the intestines and glands that develop from them and pour their secretions into them to assist in carrying on digestion, are the organs for the elimination of the end products, the ductless glands, and for the most part the organs of reproduction.

These are supported in their position and protected by the muscles and other structures of the parietal peritoneum which form an inner lining of the abdominal cavity, and the visceral peritoneum folding over the intestines and glands attaching them laterally and posteriorly to the abdominal wall. Without going very fully into the anatomy of the peritoneum in discussing intestinal obstruction, perhaps it is sufficient to say it almost completely covers the liver, the stomach, the small intestines (excepting the upper portion of the duodenum), and the uterine appendages. In covering the small intestines it attaches them by its prolongation or mesentery obliquely from the left side of the second lumbar vertebra to the base of the cæcum in the right iliac fossa.

The peritoneal investment of the colon is much less complete than in the case of the small bowel, about one-third being uncovered. The folding of the peritoneum over the colon holding the large intestines in place and forming the mesocolons—the ascending, transverse, descending, and meso-sigmoid—forms important landmarks in the anatomy of the abdomen. The transverse mesocolon divides it into the greater and lesser peritoneal cavities, which are connected through the foramen of Winslow, and covered and protected by long folds of peritoneum forming the greater and lesser omentum. The peritoneum only partly covers the bladder and uterus. The kidneys being outside of the peritoneal sac are seldom involved in intestinal obstruction. Although the pancreas is extra-peritoneal, its connection with the duodenum through the pancreatic duct and ampulla of Vetter occasionally causes it to play an important part in this distressing malady.

The abdominal cavity has several apertures, as for the entrance or exit of blood vessels, nerves, lymphatics, the œsophagus, or the descent of the testicles in the male and the umbilical openings through which the growing fœtus receives its nourishment. Any imperfection in the closing of these leaves a ready channel for the intestines to emerge and become incarcerated, or obstructed. They receive an abundant blood supply from the large abdominal blood-vessels, and the nerve supply consists of branches from the spinal nerves and the vagus, but the principal supply is from the splanchnics.

A factor of much importance in the anatomy and pathology of the subject under discussion is the great area of the peritoneum, being quite equal to the cutaneous surface of the body, its abundance of blood-vessels and lymphatics permitting a rapid absorption of toxins and a consequent overwhelming of the nervous system.

Intestinal obstruction may occur at any time—from the first hour of life to the limit of extreme old age. At birth there is sometimes a more or less complete arrest of development of the part of the embryonic end-gut formed by the colon. In such cases the gut is a mere hollow fibrous cord so closely and firmly invested by the peritoneum as to compress the abdominal veins. Or, occasionally, in the degeneration and obliteration of the vitello-intestinal duct a portion of the ileum is involved, and obstruction so brought about.

It would seem fair to assume that the person born of healthy, strong parents, plainly and well

\*Read at a meeting of the Long Island Medical Society, April 3, 1906.

fed, with good muscular development, a life in the open air producing stamina and nerve force, would be much less likely to fall a victim to this accident than the individual of less vigorous type. Certainly a flabby abdominal wall, with thin, non-resisting muscles must sooner or later lead to lengthening of the mesocolons, mesentery, and ligaments, with their attending evil results.

The majority of cases of intestinal obstruction occur in the lower abdominal cavity. The ileum is most frequently involved by reason of its lower attachment, its long mesentery allowing free motion, its proximity to the vermiform appendix, and the pelvic organs that so often become the site of bacterial infection, most frequently becomes obstructed. Its relation to the femoral and crural openings easily allows it to be forced through them and incarcerated, and its low attachment in the right iliac region, no doubt, accounts for the frequency of hernia on that side.

In this region also the meso-cæcum being short, holding the cæcum in place, allows the freer ileum to prolapse into it and become invaginated. This accident is not uncommon in children, when the colon is taking on rapid growth and becoming elongated. Sometimes the long mesentery of the ileum allows it to carry before it the meso-colon and cause a lumbar hernia, either through the muscles or at Petit's triangle. The presence of a Meckel's diverticulum may allow the intestine to become angulated, or should the diverticulum be patent the bowel may become invaginated into it, or the diverticulum become invaginated into the gut—a Littre's hernia.

Slits in the mesentery, or splitting of the omentum, may have loops of the intestines through them and so lead to occlusion or strangulation of the bowel.

Going over in some detail the causes of intestinal obstruction, as in hernia, the graver symptoms are caused by the interference with the circulation in the bowel. The infiltration and œdema of the gut cause an irritation and reflex inhibition of the motor nerves. The intestine may not be so severely constricted as to threaten its destruction, yet the serious symptoms are present. In the herniæ we commonly meet with, such as inguinal, femoral, or umbilical, the difficulty in making clear the anatomy of the part is not so great as in herniæ through openings in the pelvis, or in the diaphragm, or within the abdomen as through the foramen of Winslow.

Hernia through the diaphragm is more com-

mon on the left side than on the right, because of the protection given to the right side by the liver; for this accident is nearly always caused by violent force or blows on the abdomen.

The œsophageal foramen and the surrounding area is the usual site of this hernia, but the diaphragm may be penetrated in many places. The stomach is more frequently carried through the opening than the colon, or the large bowel than the small intestine.

A more frequent accident in destroying the circulation of the intestine is invagination of the gut. Intussusception may occur in any part of the intestines, but most frequently in the small bowel, and may be of several kinds and of varying extent. A certain degree of invagination may take place without causing any injury to the intestine—so-called physiological invagination—but so soon as pressure is brought to bear on the mesentery, pathological conditions supervene. Several theories have been put forth to explain the cause of this accident, but it is now generally held that “energetic annular tetanic” contractions of some part of the intestines together with contraction of the longitudinal muscular fibres causes the gut to invaginate, the upper or proximal contracted parts always dropping into the lower or distal non-contracted parts. The degree of compression on the mesentery will determine very largely the severity of the attack and the course of the disease, which may be from two days to four weeks, with the possible happy result of having the invaginated portion pass away with the fecal movements.

Another condition, still, in which the circulation of the intestine is imperilled, or cut off, is in axial rotation of the bowel. To permit of this a part of the mesentery, or mesocolon, must be of uncommon length. Just this condition of affairs often exists at the sigmoid where this portion of the gut is sometimes quite long and deflected. Situated as it is down in the left iliac fossa, often containing considerable masses and subjected to much pressure, with a long pedicle of meso-sigmoid, rotation may easily occur. Similarly, when there is a long meso-cæcum, the colon may become twisted, or the ileum may become wound around the cæcum, forming a compound volvulus.

The different forms as given by Rokitsky are:

“(a). A piece of intestine may perform a complete or partial rotation around its longitudinal axis; when this occurs, the walls



of the intestine become so closely approximated that the lumen of the bowel is obliterated."

- "(b). The whole or part of the mesentery performs either half a rotation, or a whole rotation, or several rotations together with a piece of intestine attached to it; in cases of this kind, rotation of the bowel occurs around the mesenteric axis."
- "(c). A piece of intestine with its mesentery forms an axis around which another loop of intestine with its mesentery undergoes rotation."

Axial rotation of the bowel is an accident of middle life, or after, rather than at an earlier period.

Any part of the small intestine may be the site of a mechanical obstruction. A loop of bowel with a long mesentery disarranging its relations in the convolutions may be looped with another such section of intestine. Besides the winding or twisting of the bowel around its axis, it may be looped around a tumor, or over bands of adhesions; or two separate loops of intestine may be adherent and become angulated by gas or by gravity.

Another condition that causes intestinal obstruction is a mesenteric embolus, or thrombus.

The artery may become plugged by a clot from a diseased endocardium, or a clot free in the circulation, or possibly by a bacterial embolus. The vein may become diseased from intestinal ulceration, or by bacterial infection in the mesenteric glands, a condition that is not uncommon. In any case, unless the blood-vessel block is very small, the intestine soon perishes and the patient dies without prompt surgical interference.

Internal obstruction of the intestine, from constriction and narrowing of the lumen of the bowel, or by obstructing masses within it, is brought about in various ways.

When the mucous surface has been the seat of ulceration, or injury, contraction not infrequently follows. Malignant disease of the bowel similarly causes contraction or compression, and sometimes complete stenosis and occlusion. Growths within the intestine, such as polypi, occasionally cause obturation. Masses of fecal matter, enteroliths, or intestinal worms, either alone or in connection with constriction, either pathological or reflex, may produce occlusion.

Gall stones or pancreatic stones are seldom of sufficient size to obstruct the intestine, but their presence in the ampulla of Vetter, or the ducts

emptying into it may cause a peritonitis or a tumor that produces obstruction.

Should a large stone succeed in reaching the duodenum it causes obstruction, according to Mayo-Robson:

1. "By mechanical obstruction of the bowel."
2. "As the result of local, acute peritonitis around the gall-bladder setting up paralysis of the bowel in the neighborhood."
3. "Volvulus of the small intestine which may depend;—(a): On the intensity of the nervous disturbance during acute, biliary colic; (b): On the excessive peristalsis accompanying the passage of a stone."
4. "As a late result of cholelithiasis due to strangulation by adhesions or bands formed in connection with the gall-bladder, or from cicatricial construction in connection with fistulous passages between the gall-bladder and duodenum, or colon."

Disturbance of the nervous mechanism of the bowels may produce the symptoms complex of obstruction. The intestine being a long muscular tube containing liquid and gas is almost ceaselessly in motion to carry onward its contents and bring the chyme in contact with the mucous surface for absorption or elimination. This is accomplished by the motor, sensory and vasomotor nerves, and the plex of Auerbach, Billroth, and Meissner in the intestine. The primary stimulus in normal peristalsis comes from the nerve plexus in the bowel being excited by the bowel contents. Irritation of the nerves of the intestines causes reflex inhibition and paralysis of the gut—not necessarily in any considerable portion of the intestine.

Cases of nervous paralysis per se, cases in which no pathological condition in the bowel can be demonstrated, or where bacterial infection can be eliminated, are not of frequent occurrence.

Treves has reported a case of inflamed undescended testicle that was the exciting cause of the intestinal reflex paralysis. Possibly this accident happens sometimes after operations in the abdomen, through ligation of parts covered by peritoneum. Should the splanchnic nerves be involved in pleural adhesions, paralysis would occur. In hysterical cases occasionally we find an undoubted angeo-neuro-cedema of the bowel that will present every evidence of intestinal obstruction. Possibly nervous paralysis from over distension of the bowel with gas would better be attributed to a toxemia as an exciting cause.

In toxemia we have a comparatively common

cause of intestinal obstruction. The precise manner in which toxins bring about inhibition of the motor nerves of the bowel is not quite clear; very possibly by their effect on the base of the brain in some cases; or by their effect on the nerves and their ganglia in the intestine; and in others by the influence of the toxins on the ductless glands that in some way chemically disintegrate the blood preventing the elimination of acetones and diacetic acid which overwhelms the central nervous system.

In acute peritoneal infection the toxins may be absorbed so rapidly as to speedily produce paralysis of the bowel. Whether the toxemia from disease outside the peritoneal cavity—such as pneumonia—acts on the nervous system primarily or through the changed secretions of the ductless glands, I believe is not yet definitely known.

The pathological and post-mortem findings from toxemia originating from the different organs frequently have many things in common. In the urine indican is almost always present, and frequently acetone and diacetic acid. It is well known that in some diseases—such as diabetes mellitus, when the primary cause is frequently a disturbance in the physiological function of these ductless glands—we have the same elements in the urine and a toxemia acting on the nervous system.

It is just possible that toxemia may have a secondary effect in causing obstruction of the bowel. Physicians have noted intestinal ulcers in uræmia for many years, but they have offered no clear explanation of such occurrences.

In observations on the post-mortem findings in death due to toxic poisoning of pregnancy and kidney disease, pathologists (notably Ewing, of New York) have pointed out the frequency of minute hemorrhages in the intestinal muscle and peritoneum, as well as in the other abdominal organs. It is possible these hemorrhagic patches, when not so extensive as to produce gangrene, may cause sufficient irritation for reflex inhibition and paralysis.

The scope of this short paper is not sufficient to undertake a review of a very common cause of intestinal obstruction—peritonitis—whether bacterial, chemic, or mechanical, except in a very brief way.

How does peritonitis bring about obstruction? Or why does obstruction of the bowel occur in peritonitis?

Not much need be said in addition to the causes of obstruction already mentioned. As is well known, acute infection of the peritoneum

does not always induce paralysis. Sometimes obstruction of the bowels is caused mechanically by peritoneal adhesions, or by fibrous bands that angulate them.

When the peritonitis is sufficiently virulent to produce severe toxemia, or sufficiently widespread to permit rapid absorption of the toxins, the nervous system may be overcome and paralysis caused. No doubt obstruction is much more likely to result from acute visceral peritonitis than from bacterial inflammation of the parietal peritoneum. For instance, in subphrenic abscess, we are not so likely to get symptoms of intestinal obstruction unless the abscess ruptures and the visceral peritoneum becomes infected, yet nowhere in the abdomen is absorption so rapid as by the peritoneum of the diaphragm. In such cases it may be the toxins the nerves in the peritoneum and bring about reflex inhibition. Another view that has been much discussed by many competent observers in more recent years, is the effect of the bacterial invasion on the structures of the bowel. It is held that it is the bacterial inflammation of the muscle and peritoneum or the capillary engorgement and oedema of the intestine that is the cause of the irritation and reflex inhibition of the motor nerves, rather than the toxemia.

Inasmuch as peritonitis is seldom widespread, but nearly always local and confined to some of the peritoneal recesses (as in appendicitis), it would seem that this observation has the support of much clinical experience. Whatever be the cause, it is well known that in these circumscribed areas of peritonitis, we frequently observe the dread symptoms of intestinal obstruction.

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#### ASSOCIATED STOMACH AND GYNECOLOGICAL LESIONS.

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CLARENCE REGINALD HYDE, A.M., M.D.,

Assistant Gynecological Surgeon, Long Island College Hospital, Fellow of the Woman's Hospital, New York  
Obstetrical and Brooklyn Gynecological Societies.\*

Specialists are more and more interesting themselves in those reflexes associated with their individual branch of medicine. They also study their relation to other diseases. Gynecology being a specialty, despite the criticism of the general surgeon, has to consider conditions known as reflexes which obtain from pelvic disease. Of these reflexes, those of the stomach furnish interesting data. Some may doubt the existence



of a stomach reflex from gynecological lesions, but writers other than gynecologists, notably Leube and Musser, affirm this truth. Gynecology can add its quota to the many reflexes which modern medicine presents, and which constitute some of the most annoying and persistent symptoms referable to the generative organs.

At the outset it may be well to bear in mind the intimate association of the uterus and adnexa to neighboring organs through the sympathetic system, from the inferior hypogastric and ovarian plexuses, branches of the hypogastric and solar, respectively. The ovarian plexus anastomoses freely with the other branches of the solar, notably the gastric. As the solar is the largest of the three prevertebral plexuses, its sympathetic influence is therefore so much more the potent. This nerve relation between uterus and stomach is beautifully illustrated by Deaver's lucid anatomical plates. Musser states that "each organ has its representative in the brain and that disease of one organ will influence the function of and create morbid symptoms in another organ which may happen to be related to it through intimate nervous connection." The most classical illustration of stomach reflex from the uterus is the well-known emesis of pregnancy. However, in 1894, Musser wrote that he believed when the mechanism and clinical course of pregnancy vomiting are studied, that they would be found to be due to affections of the blood, the poisons of which irritate cerebral centres or nerve plexuses in the stomach. This theory is being exploited, I believe, by Stone, of Manhattan, who is giving special attention to the causes of certain obstetrical conditions from toxins in the blood. Inasmuch as we have been taught that the *position* of the gravid uterus is mainly responsible for reflex pregnancy vomiting, we may possibly have to revise our theory as to the etiology of this condition in the near future.

The dictum holds good that the gynecologist should claim the presence of gastric reflexes from the generative organs just as the ophthalmologist claims stomach sickness from refractive errors, or the general surgeon, dyspepsias from cholelithiasis, or that the internist should assert any relation between chronic gastritis and chronic nephritis. We fortunately possess clinical evidence which permits us to make the statement advisedly that there exists a distinct reflex relation between some stomach lesions and the uterus, tubes and ovaries. Deep ovarian pressure during vaginal examination has produced nausea and even vomiting. I have known of vaginal douches

causing vomiting. Leube says that in nervous dyspepsias the irritation in some cases radiates directly from the genitalia. Musser states that chronic dyspepsia is a frequent reflex disorder on account of diseases of the sexual organs, as amenorrhea, dysmenorrhea, during the climacteric, and in chronic inflammations of the uterus. He calls attention to the "dyspepsia uterina," of Kisch, which he claims is common when there are malpositions, tumors, pelvic exudations, with traction (*from adhesions*), ulcers (?) and ovarian tumors. Quoting from these well-known writers is merely to tell gynecologists what they have already recognized in the past. In the study, therefore, of gastric neuroses and reflexes, we have been led to consider the extraordinary influence of the nervous mechanism, and to appreciate that female diseases can and do produce gastric symptoms.

Narration of cases in detail to illustrate the title of this monograph, will not be attempted. A few of the more common types will be discussed and their relation to the sexual organs noted. There are few of us whose attention at some one time has not been directed to those dysmenorrheics, either virgins or sterile married women, whose periods are anticipated with dread. I can recall many such cases with their intense pain, nausea, even vomiting and complete prostration. I have seen such cases with persistent nausea for hours, coupled with intermittent vomiting. At present I have under my care two cases of small fibroid of the anterior wall, in both of which the gastric symptoms are most marked. I have frequently observed the anorexia and flatulency of amenorrhea in non-pregnant women. Chronic salpingitis furnishes many a victim of dyspepsia and operation has cleared up many a dyspepsia from such lesions. A recent operative case has more than strengthened my belief that the patient's reflex dyspepsia originated in the pelvis. The ablation of the diseased adnexa has been followed by a cessation of all her annoying stomach disorders and she can now eat anything—something she has not been able to do for months.

Inflammatory exudates, peri and parametritis, suppurative tubal and ovarian processes portend adhesions either spiderweb or more firmly organized. The history taken in such cases invariably elicits the admission of a dyspepsia. Such patients are by no means rare. I believe that dyspepsias under such conditions and in the presence of such pathological pelvic lesions, will never yield to

lavage, stomach medication and diet. The cause, remote as it is, is purely reflex, and finds its origin and location in diseased pelvic viscera. Operative interference alone affords relief, but the imperative rule should be not to operate because of the presence of a reflex stomach disorder, but only for certain well-defined surgical indications.

We do not affirm that because a woman has a dyspepsia that she has some ovarian, tubal, or uterine affection, but we are convinced that in certain selected cases, the removal of the uterine, tubal or ovarian stimulus causes a disappearance or partial subsidence of an accompanying gastric condition. Our histories are replete with cases of disordered stomachs from intestinal adhesions, and chronic oöphoritis, and we can distinctly call to mind the nausea of an unruptured ectopic, and the vomiting of many a ruptured tubal gestation. Large fibroids and ovarian cystomata may cause a reflex stomach condition. During history taking, and after a certain train of symptoms has been developed, we naturally are not surprised to have the patient tell of her stomach, because we know that certain gynecological conditions invariably have an associated gastric disorder. The period of development of the sexual sense may also, as I have observed, cause as the principal symptom a high grade nervous dyspepsia, which, after puberty supervenes, heals spontaneously after having resisted all cures till then.

We must diagnose between a purely nervous dyspepsia and that from a reflex origin. I do not know whether this classification will stand the scrutiny of the gastrologist. A nervous dyspepsia will be seen in the neuroses accompanying the climacteric or after an artificially induced menopause, or in the neurasthenic condition which may so vividly develop in cases of badly lacerated cervix, of long duration and accompanied with much sclerotic tissue. The train of nervous symptoms in this last condition may range anywhere from ordinary so-called neurasthenia to melancholia or even suicidal mania. For this very reason I should class any dyspepsia originating from such a gynecological lesion as nervous. Reflex dyspepsias depend on the presence of pathological pelvic conditions,—in nervous dyspepsia the pelvis is negative. In the former we would have a history of masses in the pelvis, or uterine tumors or menstrual disorders, coupled with such objective symptoms as leucorrhœa, pains or hemorrhages; while nervous dyspepsias are dependent on morbid changes in the ner-

vous system. We are further called on to exclude any possible hepatic, renal or gall-bladder disease. And I am a believer in inquiring into the mouth condition and as to whether the patient is a water drinker or not, for hydrotherapy will sometimes accomplish wonders in women dyspeptics.

One of the most interesting cases of reflex gastric condition which has come under my observation was that of a young married woman with a marked acne and a chronic dyspepsia, which were both exaggerated at her menstrual period, during which she also suffered from an intense dysmenorrhea. In the inter-menstrual period, a marked cessation of these two annoying conditions was noticeable. At a treatment in the inter-menstrual period, a sound was used, and as the tip of the instrument passed the internal os, the patient complained of the same violent pain which she had experienced during her menstruation, and became considerably nauseated. The following day her face broke out in an exceedingly marked acne. To prove that the uterus had a partial, if any, causal relation to the acne, at the next treatment following a brief period, after menstruation had ceased, the sound was again introduced with another resultant attack of nausea, and later with the acne. This acne has been credited by two skin specialists as due to a stomach condition, because she suffered so much from chronic indigestion. I attributed her stomach condition to reflex from the uterine condition, and the acne, possibly from a lack of proper uterine drainage due to a marked cervical ante flexion, and proposed dilation and curettage. The result was happily an almost immediate subsidence of the dysmenorrhea and a most decided improvement in both acne and dyspepsia. All conditions, however, returned in a few months, and I regretted that with an established etiology, I did not perform a Dudley and thus gain permanent drainage.

Not all stomach reflexes are abolished after operative interference, but we can note a marked improvement in many cases, enough to substantiate our claim to a more than casual relation. I am positive that every gynecologist has experienced proof of these brief notes, and also that they believe these theories are not empirical but attested by well-grounded clinical evidence, and that the uterus, ovaries and tubes do influence the stomach and reflect upon them, sympathetic ailments from intimate inter-nerve connections.

126 Joralemon, Brooklyn, N. Y.



## MIDDLE EAR CATARRH.\*

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It is not intended in this paper to take up the entire subject of catarrh of the middle ear: to do so would be to review nine-tenths of the practice of otology. Nor even to attempt a brief synopsis of the condition. It is written solely to emphasize certain facts which the general practitioner too often overlooks; to call his attention to others whose importance he underestimates and to correct mistaken views which still linger as the inheritance of primitive otology. The points which I wish to make are these:

1. A chronic middle ear dry catarrh is incurable in the later stages.
2. The possessor of a chronic suppurative middle ear catarrh is the owner also of a cerebral powder magazine which needs but a spark to bring death and destruction with its touch.
3. There is *not* danger in checking this discharge in children or in adults; this is imaginary; to permit it to continue, then, is real danger, both to life and hearing.
4. The prime causal factor in this condition is often removable and its early recognition will save much grief and suffering.

It will be wholly pertinent as an introduction to the subject matter in hand to speak of this condition first, and to review its attendant evils.

Inasmuch as the greater number of middle ear inflammations are a consequence of nasopharyngeal catarrh, and a larger part of the latter due to nasal obstruction, I shall, neglecting those of the nasal choanæ proper, take up the subject of adenoid growths in the pharyngeal space. I do this for two reasons: first because it is one of the most frequent if not the most frequent cause of suppurative middle ear diseases and secondly it makes what I have to say of practical use to you.

Adenoids, pathological speaking, are similar in structure to the enlarged faucial tonsils, and are simply a hyperplasia of the glandular substance in the vault of the pharynx, and of Luschka's tonsil.

They occupy the vault behind the posterior nares and when large completely occlude these spaces. The evil results of their presence are manifold. The most noticeable and most important is the effect on respiration. The nose

being blocked up, the patient becomes a mouth breather; the results are dry throat, coated tongue and noisy breathing: the inspired air which should be warmed, moistened and filtered in normal nasal breathing is taken in cold, dry and filled with impurities; chronic throat and lung troubles arise: imperfect oxygenation of the blood, weak lungs, bronchitis and asthma result.

Nasopharyngeal catarrh almost invariably accompanies this condition and the nasal discharge which is induced can be checked only by the removal of the offending cause.

The effects on the general health are not to be disregarded. The subject is always "taking cold." Sixty per cent. of nasal catarrh is due to this cause alone.

Attacks of pseudo croup are frequent. The patients are anemic, sleep poorly, have night terrors, poor appetite, and are depressed and languid. Nutrition is impaired and the door may thus be opened to grave constitutional disease especially tuberculosis.

The results, mentally, of this condition are not to be ignored, not infrequently there ensues a special form of mental deficiency which has been termed aprosexia; this translated simply means an inability to concentrate the attention, and while a seeming deficiency may appear from the subject's inability to hear, yet there seems still to be a causal relation between mental incapacity and the presence of these growths.

Incidentally it might be remarked that a most interesting paper might be written on the "Relation of the mental and moral nature to bodily defects."

Part of the foregoing, while germane to the subject in hand, is specifically pertinent in the relation which these growths bear to disturbances in the middle ear. Hyperemia and catarrhal inflammation of the eustachian tube and middle ear, both proliferative and suppurative result, with all the possibilities of serious and extensive mischief which these conditions involve. Chief among these are deafness, necrosis of the temporal bone, and intracranial abscess. Deafness may be caused by mechanical obstructions of the mouths of the eustachian tubes, and it is generally impairment of hearing for which these patients seek relief.

Too often it is then too late, and irreparable damage has been wrought.

It may be almost laid down as an axiom, "That a deaf child who breathes through the mouth and has a thin compressed nose is the subject of adenoid vegetations in the nasopharynx."

\*Read before the Kings County Hospital Alumni Club, April 28, 1906.

There is a practical bearing in all this, applicable to us all. The diagnosis is easy. The facial expression—open mouth—compressed *alæ nasi*—respiration through the nose, difficult or impossible—inspiration easier than expiration—an associated nasal discharge sometimes present—a spray blown in one nostril, not returning by the other—this makes up the picture. The treatment is equally easy. Thorough and complete removal with suitable forceps or curette at the option of the operator, with or without anesthesia should be done, and when only tubal obstruction has resulted from their presence. Politzer's inflation completes the treatment.

The pathology of middle ear catarrh does not differ from inflammations of mucous membranes elsewhere. In the acute variety the hyperemia is followed by the exudation of more or less serous or purulent material. The lining epithelium is macerated and exfoliates. When this process is of a violent nature, and there is tubal swelling or obstruction, the accumulation can find exit only through the *membrana tympani* or, into the mastoid cells. In the first instance perforation with otorrhea results and in the second mastoiditis with all its dangers of secondary brain abscess. The symptoms of acute catarrhal otitis media are: impaired hearing, tinnitus, fullness in the ear, sharp lancinating pain, intermittent at times, and usually more severe at night. The treatment is local venesection, and whatever the method, leeches, cups, etc., let this be done just in front of the ear and not behind it. Frequent, long continued heat by means of hot water in the ear, the whole covered by a poultice, hot gargles and nasal sprays, and inflations by the catheter or by Politzer's method.

Every practitioner should possess a Eustachian catheter, a Politzer bag, a set of ear specula and an auscultation tube.

Seen through the speculum an inflamed or bulging drum is easy of recognition and the pouring in of all sorts of abominations to soften a suppositious plug of dried wax should be avoided.

The Politzer bag requires no skill to use, and to inflate through the catheter is easy. One has only to cocaine the nose, and with the patient's and operator's ears connected with the auscultation tube the doctor can without giving pain make intelligent attempts until he succeeds, the success being announced by his hearing the rush of air into the tympanum. These things he should do because a retracted drum forces the ossicles together, restricts their mobility and in-

duces a contraction of the tensor tympani muscle, all of which conditions may become permanent if the cause be allowed to continue active; more than this if abraded surfaces in contact be left undisturbed adhesions will be set up between the drum and the promontory. But we will assume that the catarrhal process has gone on to supuration; what is the condition then? We have an abscess with insufficient drainage. The Eustachian canal swollen, preventing egress of the contained pus, the cells of the mastoid resisting with more or less success the progress of the disease which is converting its lining into a pyogenic membrane and it should be remembered that this membrane serves as periosteum also, the bone here having no other covering.

Do some of you recall periostitis elsewhere? Do you remember its effects upon the underlying bone? What is likely to be the result with but a thin lamella separating brain and bacteria? No self-respecting life insurance company would take such a risk for twenty-four hours, and it would be right. A little lowering of the vitality, a little increase of the virulency of the disease, and the insurance policy has matured.

What can be done for these cases. The keynote of success in treatment is *absolute cleanliness*. Wash them out with any solution you like, boric acid is good enough so long as it is thoroughly done. Take a Davidson syringe, a quart of the warm solution, hold the external ear upward and backward to straighten the canal, force in the solution until it comes away clear. Inflate by Politzer's method if tubes are open. Wash again, dry out ear with a mop of absorbent cotton on a wooden toothpick and then and *not till then* insufflate some mild antiseptic and astringent powder. Of the chronic dry middle ear catarrh I shall say but little. A brief glance at the pathology will tell all the sad story. Hyperemia, connective tissue hyperplasia with subsequent sclerosis. Ankylosis of the ossicles, fixation of the strapes in the oval window and the round window filled with cicatricial tissue. This makes up the picture and the results are distressing tinnitus, and increasing deafness which is incurable. Into the specialist's hands only can these cases be entrusted, and he has exhausted his efforts in attempts to cure. New methods are replacing the old, only to be found wanting in their turn. The most that he can hope for, generally speaking, is perhaps some little amelioration of the symptoms, and to hold the disease in check.

In closing this crude outline of this most im-



portant subject, I wish again at the risk of appearing tedious, to repeat what was said in the opening sentences. Chronic middle ear catarrh is incurable. Don't let your cases become chronic. Treat them early when there is some hope of success. Check as soon as possible suppurative disease in the middle ear, unless you are anxious to use your trephines and sign death certificates. And lastly, as preventative medicine should hold first place with the true physician, do not permit a mouth breather to be numbered among your acquaintances. This condition is a constant menace to health, happiness and hearing. Its importance can not be overestimated and a knowledge of this, generally promulgated, will make the otologist largely an ornamental member of society whose function will be limited not alone to curing people but to keeping them well.

#### THE EFFECT OF THE KINDERGARTEN ON THE DEVELOPMENT OF CHILDREN'S EYES.

BY NELSON L. NORTH, M.D.

Kindly permit me right here at the beginning, to state that I do not intend a tirade against the kindergarten, but desire simply to call attention to a few facts, which, in the rush and turmoil of an active city practice, might easily be overlooked.

FIRST: What is the condition of the eyes at the early age (sometimes three years), at which children are sent to the kindergarten? Naturally no more fully developed than the body at the same age—plastic, easily moulded and susceptible to surroundings, fusion (the ability to see a single object jointly with both eyes), not fully developed, and yet the eyes put to the strain of near work for varying lengths of time.

If we stop for a moment and recall how the extrinsic eye muscles have their insertion anterior to the equator of the globe, we can readily see that the effect of constant contraction of these muscles, as takes place in fixing the vision and especially on a near object, would have a decided effect in elongating the eyeball in an antero-posterior manner, a fact which we know takes place in the near-sighted eye of the more adult person, and what must be the result in a very young child whose tissues are soft and readily susceptible of influences and pressures?

Would it not be possible for a perfectly normal eye to be damaged in this way, and if this is the case, how much more so the eye, which, by heredi-

tary tendency or otherwise is predisposed to imperfections of whatsoever nature; would not a tendency to myopia be greatly exaggerated, and a slight astigmatism developed into a positively greater one?

Would it not be the tendency for errors which, in the natural development of the eye might correct themselves, to become fixed and permanent by the too constant use of the eyes for near work, even if it is only in the nature of "play work?"

Did you ever try to perform some of the tasks that are daily occupying the little tots? For instance, the paper weaving, the working into more or less intricate geometrical designs of strips of paper of various colors, and adjusting them with an exactness that demands admiration of the skill necessary, and an appreciation of the care and attention that has been expended—also the pin hole work, the following with different colored thread, designs punched into paper, and various other works equally trying—if you have never tried to do these, try it some time, and you will realize that it is hard work, even if it is as before said "play work"—and the child must use up a great amount of effort and strain, in accomplishing the same.

Of course they like it just as their mothers like fancy lace work, very fine painting on China, etc., like it because it is pretty and attractive, but knowing all the time that it is damaging to their eyes.

Personally, I have made it a rule, when examining the eyes of young patients with astigmatism, to inquire if they attended the kindergarten, and it so often is brought out that they did, that while I do not say that the kindergarten caused the trouble, yet it is a striking fact that many of these scholars, should early show errors of vision, and complain of eyestrain and a tendency to imbalance of the ocular motor muscles, producing spasmodic crossing of the eyes.

After careful thought and the consideration of a great many cases, I am compelled to think that for most children, the less they use their eyes for careful, near work in their early years, the better will the eyes develop, and so it seems to me that for the child to leave kindergarten alone, and at about seven years of age to begin in the regular school courses, is far preferable, and would have somewhat of a tendency to lessen the necessity of the use of glasses among the children of school age.

Of course the kindergarten is a pretty idea, and occupies the child and develops its mind, but I have yet to find a child who had a good start, free from care until his seventh year, who

did not stand as well as, if not better, after a few years at school, than his kindergarten colleague.

The first few years of a child's life are so full of development and progress, that the more fresh air and sunshine and of freedom from restraint and confinement in the school room, the better (other things being equal), will be the resisting power to disease, and the greater the activity and grasping power of the mind in the years to follow.

There certainly is among children, as among horses, such a thing as breaking to harness too young, thus spoiling what nature intended should be a more than ordinary specimen.

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#### CAUSES OF DELAYED AND NON-UNITED FRACTURES.\*

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BY WARREN L. DUFFIELD, M.D.,  
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The terms delayed and non-union are frequently confounded and used interchangeably. By delayed union, however, we mean a condition in which bony union is slow in making its appearance and where mobility exists beyond its usual time, but where firm union eventually occurs.

The term non-union is relative, for the reason that a fracture which has failed to unite at the expiration of three or four months, and has been classed as a non-union, may unite at the end of a year or even longer. Senn reports a case of fractured femur in a healthy man in which there was no union one year after the receipt of his injury and in which union subsequently occurred without any surgical interference. He reports another case in which bony union had not taken place until nearly two years after the fracture was sustained. Non-union should therefore be reserved for those cases where there is no bony union after a lapse of a number of months or where a pseudarthrosis has developed.

Delayed union is not very uncommon, but failure of union is very rare; most of the cases occurring in middle life (Senn states it a little earlier, between the ages of 20 and 35) and most frequently in the humerus, tibia and femur in the order mentioned. Anatomically, two distinct varieties exist: in one the fragments are more or less closely bound together, not necessarily with their ends in apposition, by solid

bands of fibrous tissue, sometimes enclosing nodules of bone; in the other similar fibrous bands enclose a central cavity containing a viscid synovia like liquid into which the ends of the fragments may project; and these ends may be smooth or even covered by hyaline cartilage—a complete new joint.

Before going on to the causes of the above conditions I would like to call your attention to the actual changes which take place in and around the fractured ends of the bone and to briefly mention the theories of various observers on callus formation.

According to the location of the callus around, within or between the fragments, we speak of it as external, internal or intermediate. The external and internal callus act as provisional splints, the former around the shaft of the bone and the latter in the medullary canal; both of these being absorbed to a very considerable extent as the intermediate or definitive callus interposed between the fractured ends, completes its work of firmly uniting the fractured ends together.

Callus is the product of cell proliferation of those tissue elements which are directly concerned in the growth and development of bone.

Monceau attributed to the periosteum and endosteum the function of producing callus, while Haller believes that the periosteum takes no part in the regeneration of bone, but that callus is derived from the fractured ends of the bone, more especially the myeloid tissue. Cruveilhier claimed that the lacerated soft tissues around the fractured bone ends, the periosteum, connective tissue, muscles, tendons, etc., furnished the material for callus, a theory which might derive considerable support from the fact of there usually being very abundant callus where the bone is surrounded by a thick cushion of soft parts and conversely there being but little callus where the bones are subcutaneous.

It is now generally conceded that the provisional callus is the product of tissue proliferation from the periosteum, while the definitive or permanent callus is produced directly from the medullary tissue.

The osteoblasts from which bone production can alone take place are found in the periosteum, more especially in its inner layer, the cambrium, and in the interior of bone. Regeneration of bone from these cells takes place in two ways—either the cells are transformed into an osteoid tissue, or they are first changed into cartilage cells, and the latter at a later stage undergo ossification.

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\*Read before the Brooklyn Surgical Society, April 5, 1906.



The osteoblasts in the periosteum, and, to a lesser extent, those in the central medullary cavity, produce bone by this indirect method, while in other places ossification is effected in a more direct way by the osteoblasts being transformed into an osteoid substance.

In the normal regeneration of bone, cartilage plays an important part. As the bone cells disappear, or at least lose their nuclei where cartilage cells form, it is probable that the cartilage cells represent structures intermediate between osteoblasts and bone cells. Cartilage is abundant where union is retarded, and especially in cases of pseudarthrosis.

Callus may be formed in excess of local requirements after a fracture, and yet no union take place. The osteoblasts respond promptly to the stimulus created by the trauma, karyokinetic changes occur early, new cells are formed with great rapidity, and a large mass of new material is deposited at the seat of fracture, but bony consolidation does not occur because the new tissue does not undergo ossification. The normal development of the cells is arrested at an early stage, and the chemical processes upon which ossification depends are delayed or fail to appear altogether.

To obtain bony union after a fracture certain well-recognized conditions are necessary; 1st. A sufficient blood supply to the part: 2d. Unimpaired innervation of the part: 3d. Placing and maintaining the fragments in contact, or at least in such close proximity that the callus thrown out from both extremities can meet and establish a bony bridge between. Injury of any principal vessel or nerve of a limb, as a complication of any fracture, does not only endanger the integrity of the limb, but may constitute an important element in the production of non-union.

Thus it will be seen that the reason of delay or of failure of union in the great majority of cases, lies in the arrest of the evolution of the callus before it has entered upon the stage of ossification, that is, its persistence as a fibrous tissue; in others the separation of the fragments is so great and the gap so broken by interposed muscle that a continuous callus, formed by granulations springing from bones, has never existed, and the fibrous bond is composed solely of the thickened surrounding connective tissue.

The ends of the fragments are variously affected in accordance with the extent of the rarefying and productive processes which follow the injury; according as one or the other pre-

dominates the ends are diminished in size sometimes to slender conical points or enlarged by the formation of irregular masses of bone upon them.

This tendency to excessive rarefaction, when present, is a serious obstacle to the success of operations undertaken to secure union and it is said to be increased by metallic sutures.

The causes of non- and delayed union may be conveniently considered under the following headings—constitution and local.

Constitutional causes:

In most of the text-books on surgery we find old age mentioned as a cause, usually the first cause to be mentioned; yet it is as frequently stated that most cases of non- or delayed union occur in the middle life. Possibly old age is unjustly accused in this instance because of the very common occurrence of non-union in fractures, intra-capsular, of the neck of the femur, whereas other fractures in the aged unite quite readily. Senn claims that this is due not so much to advanced age but rather to imperfect treatment. He advises immediate reduction and permanent fixation with a plaster of Paris splint with pressure of the trochanter major in the direction of the axis of the neck of the femur with a compress and set screw, the latter passing through a splint which is incorporated in the plaster of Paris dressing. He claims by this method to obtain union not in the exceptional but in the majority of cases.

Among other constitutional causes may be mentioned fevers, syphilis, scurvy, malignant diseases of bone and rachitis. In the majority of these conditions the relation of the cause to the effect is not known further than that it is an arrest in the evolution of the callus. Lactation and puerperal state are said to be inimical to rapid union as of course a paralysis involving the fractured limb would be.

It is not my purpose to go into the treatment of these conditions except in a very brief way. In delayed, and non-union arising from constitutional causes the treatment would of necessity be constitutional. Antisyphilitic treatment has given excellent results in those cases due to syphilis, and oil of phosphorus equally good results in rachitis and in fact in many cases not due to rachitis.

The local causes fortunately are usually more amenable to treatment, once they are recognized.

Among the local causes may be mentioned the following:

That part of a bone which is away from the direction of the nutrient artery is most liable to give rise to non-union. In the upper extremities the nutrient arteries run toward the central joint, thus the upper part of the humerus would be least likely to unite. In the lower extremities the nutrient arteries run away from the central joint and one would expect non-union to occur in the lower part of the femur and upper part of the tibia. Direction of line of fracture, oblique more prone to non-union than transverse. Separation of fragments, interposition of foreign bodies, suppuration and improper dressings, too light or too loose, need only be mentioned. The continued use of wet dressings and the influence of a surface inflammation have occasionally shown in the delay of repair, and in the latter condition a softening of a firm callus coincident with the appearance of an erysipelas of a limb.

Finally Stimpson says that he has observed in several cases the presence of an open wound exposing a fracture, even when suppuration is slight and superficial, to be accompanied by marked hyperæmia and softening of the bone and a great delay in union of the fracture even when the fragments were in exact apposition.

The treatment of the cases arising from local condition would be briefly to bring the fragments in apposition by reduction of an imperfectly reduced fracture, the removal of intervening bodies, muscles, fascia, etc., and freshening or irritating the bone ends by curettement, drilling or manipulation, and the application of proper dressings and splints. Sluggish fractures of the lower extremities can frequently be stimulated to heal by the application of an ambulatory splint. Bringing the fragments together and the retention by the use of metallic sutures, ivory pegs or bone ferrules are methods of common use. Kommel (*Medical Record*, December 16, 1905) reports a case of ununited fracture of the tibia and fibula at the end of eight weeks; he then produced venous hyperæmia by the use of bandages above and below the fracture and at the end of thirty days the patient was able to bear the weight of his entire body on the injured leg. Where a pseudarthrosis has developed complete resection of the false joint is the only treatment.

In closing I would like to report two cases.

John McG., 23 years, a strong well-developed man was admitted to St. John's Hospital, November 27, 1903, with a compound fracture of left tibia and fibula at junction of lower and

middle thirds. He had sustained his injury while playing football. Wound was enlarged, ends of bone brought into apposition and one strip of iodoform gauze introduced down to fracture. Wound partially closed and leg immobilized in traveling splint with six pounds extension on account of tendency of fragments to over-ride. On removing gauze drainage from wound at the end of three or four days, it was covered with and followed by the discharge of a considerable quantity, about an ounce, of a clear gelatinous fluid. On January 7, 1904, six weeks after injury, no union was apparent. This case had been immobilized by a plaster cast for some time prior to above date. At this time the cast was removed, the leg manipulated and put up in a splint, union eventually becoming perfect.

The second case was Mrs. L., 46 years, a large healthy woman, weight about 180 pounds, who was struck on the leg by a piece of iron due to the explosion of the waterback of a range, sustaining a compound fracture of the tibia and fibula at junction of lower and middle thirds. She was admitted to St. John's Hospital on February 16, 1904, at which time the wound was enlarged, fragments brought into apposition and ends of tibia surrounded by silver wire to retain them in apposition. A piece of iodoform gauze was introduced down to fracture and leg placed in Volkman splint. There was little or no suppuration, though it was feared from the dirty condition of the wound, and the gauze drain was removed on the third day. While removing the drain the same thing was noticed as in the preceding case—the escape of a clear, rather thin, gelatinous fluid. The wound was allowed to close but no union took place, and on April 9, 1904, almost two months after the injury, the wound was again opened, the ends of the bone found in perfect apposition but with no sign of commencing union. The ends of the bone were curetted, wound closed without drainage and splints applied. As the patient was very anxious to return home she was allowed to leave the hospital April 21, 1904. Union gradually took place aided I believe by the use of phosphorus.

The appearance of this gelatinous substance in the gauze and following its withdrawal from around the fracture made me wonder if by my drainage I had not deprived the fracture of a portion at least of its immature callus and thus caused a delayed union. I have been unable to find any literature bearing on this point.



## TRANSACTIONS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MAY 15, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

There were about 125 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

#### REPORT OF COUNCIL.

The following candidates for membership have been accepted by the Council:

Charles Bromberg, Bushwick Hospital.  
John Bernardine Byrne, Jr., 216 Sixth Avenue.  
William Foster Ganster, 26 Berkeley Place.  
William Gotthard Hirsemann, 408 Clinton St.  
Gerard Kasper, 426 Evergreen Avenue.  
Frederick Henry MacCarthy, 410 Clinton St.  
Thomas Hosterman McKinnon,

600 Leonard Street.

Samuel Schwartzman, 332 Stone Avenue.  
Joseph William Stevens, 835 Hancock Street.  
Alec Nicol Thomson, 1309 Bedford Avenue.  
Joseph Weinberg, 482 Quincy Street.

#### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

Emil Constantine Bernauer, 860 Lafayette Ave.  
LeBaron Botsford, 225 Stuyvesant Avenue.  
Harold Roy Dunton, 3 Lafayette Avenue.  
L. H. Finch, 119 Brooklyn Avenue.  
Louis Harris, L. I. C. Hospital.  
Matthew John Leland, 220 Sixth Avenue.  
Leo Augustin Lynch, 919 St. Johns Place.  
Harry Michaelis, 236 Vernon Avenue.  
Gregory Isaac Miller, 700 St. Marks Avenue.  
Albert S. Nicholson, 210 Graham Street.  
Stanley Bishop Thomas, 391 Second Street.  
George Wieseckle, 66 Bushwick Avenue.

#### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Simon R. Blatteis, 597 Willoughby Avenue, Bellevue, 1898.

Proposed by Joseph Merzbach, seconded by Membership Committee.

Burton Harris, German Hospital, P. & S., 1904.

Proposed by R. S. Fowler, seconded by Membership Committee.

Ernest H. Saniter, 82 Sixth Avenue, L. I. C. H., 1904.

Proposed by Henry Moses, seconded by Membership Committee.

Edward J. Smith, Albemarle Road, Bellevue, 1889.

Proposed by T. B. Hegeman, seconded by Membership Committee.

#### SCIENTIFIC PROGRAM.

I: "RECENT EXPERIMENTAL WORK BEARING ON THE ETIOLOGY OF CANCER," BY HARVEY R. GAYLORD, M.D., OF BUFFALO, N. Y.

On motion duly seconded and carried a vote of thanks was tendered to Dr. Gaylord for his kindness in addressing the Society.

Adjourned.

JOHN A. LEE,

*Secretary.*

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, APRIL 17, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

ADDRESS: HOW CAN THE PHYSICIAN AND LAYMAN ACCOMPLISH MOST IN THE FIGHT AGAINST TUBERCULOSIS BY S. A. KNOPE, M.D.

*Mr. President, Fellow Practitioners, Ladies and Gentlemen:*

I consider it indeed a great privilege to appear before you. I do not know just how many laymen there may be in this audience, but whether there are few or many I wish to offer an explanation. You may possibly wonder why the medical profession of Brooklyn has taken such an active interest in the Tuberculosis Problem, and some of you may even think that there is some financial gain coming to the physicians from this agitation. I desire to assure you, ladies and gentlemen, not belonging to the medical profession, that if the Brooklyn physicians have ever entered with unselfish devotion into any work, it is this anti-tuberculosis movement. The fact that they have invited you, lay-people, to be present here this evening, is evidence that

they desire your co-operation for your own good and not for their material interest.

In order to cover the subject under discussion as thoroughly as possible, I must first speak of our, the physicians, duties in this fight against the "Great White Plague."

Our first obligation is to make ourselves thoroughly familiar with the methods of the early diagnosis of tuberculosis. The earlier we can recognize a pulmonary lesion of a tuberculous nature and the earlier we can submit the patient to proper treatment, the greater are his chances for recovery, and the less is he a danger to his fellowmen. We must of course be familiar with all the methods of modern prevention and cure of tuberculosis. Our next duty as true physician's is to be true doctors, that means true teachers. Whenever we have an opportunity we should teach individuals or the masses that consumption is preventable and curable; that prevention is relatively easy, and the cure not difficult. It is the duty of the family physician to watch over those who are entrusted to his care. He should make regular periodical examinations of the members of the family to which he is attached. It is by such systematic, periodical, careful examination of the chest of even the unsuspected individual that we very often discover an early tuberculosis: But the physicians duty does not end here. He should interest all those he can in the anti-tuberculosis war. He should impart his knowledge to those who have no knowledge. He should induce those of his more wealthy patients to interest themselves in the consumptive poor. Consumption is not only a medical, but a social disease, and the physician who can induce any of his rich patients to devote some of their wealth to the relief and cure of the consumptive poor is doing the greatest and best work he can possibly do. So much for the duties of the physician.

And now to the laity, what should they know and do? They should know that tuberculosis, particularly pulmonary tuberculosis, is a chronic, infectious, preventable and curable disease. The definition of chronic is well known—it lasts long. If we are to believe the stories of our fathers, old-fashioned consumption used to last twenty-five years. How is this disease infectious? There are four ways in which this disease can be transmitted from man to man or from animal to man and man to animal. The first is inhalation, the second is ingestion, the third is inoculation, and the fourth is one

which is not so well known, and is called drop infection.

Infection by inhalation, as you well know, comes from carelessly deposited sputum, and it is not the individual confined to four walls whom we fear most, but the individual who is up and about expectorating his seven billion bacilli in 24 hours. He is the one to fear, if he is unscrupulous. How can we overcome this greatest source of infection, the inhalation of dust derived from carelessly deposited sputum, blown up into the air by a gust of wind? No man or woman, whether father, mother, sister, brother, or child, if he is a consumptive, should have a right to expectorate anywhere except in a proper receptacle. What is a proper receptacle? I do not mean little spittoons put on the floor. I mean large spittoons, preferably of metal with wide openings, and in institutions where there are many consumptives I even prefer the elevated spittoon. An elevated spittoon is one on a stand inclosed in a box with a door opening into it. The door is closed after the spittoon is used, and it is out of sight.

What is the consumptive to do when he goes out of doors, when he is in the street, in the car or in the shop? The best thing to use is a pocket flask, and any number of pocket flasks, paste-board purses, etc. (illustrations), have been invented for that purpose. Right here, I beg of all of you whenever you are in the presence of a consumptive who does his duty in this regard, who is conscientious, to treat him as kindly and as considerately as you can. The unnecessary fear of the presence of consumptives is also a disease that we want to get rid of. We have private phthisophobia and official phthisophobia. I understand your good citizens of Brooklyn are willing to help the consumptive poor, and the Department of Health is willing to equip a good dispensary, but some well-meaning people fear patients going to be treated will be a danger to the neighborhood; but this is not so. Institutions for consumptives, well-equipped and conducted, are not a menace, but a blessing to the neighborhood. Patients who fear that the use of the pocket flask may attract unpleasant attention, I advise to buy cheap muslin and cut it up in squares like a handkerchief. I have them use one after another and put the soiled ones in a separate pocket or pouch, preferably with an impermeable lining. On their return they burn the soiled muslin.



The second source of infection is ingestion. It comes from drinking tuberculous milk or eating tuberculous meat. If there is any doubt about the purity of milk, boil it or sterilize it, and the same holds true of the meat. If in doubt about it cook it thoroughly.

The third source of infection is inoculation. How can we prevent it? All that is necessary if you fear inoculation after injury with material soiled with tuberculous substances, and dress the point of inoculation bleed freely, so as to wash away all tuberculosis substances, and dress the wound with a clean cloth soaked in alcohol. The danger of infection is thus done away with. For further treatment you should go to a competent physician.

What is drop infection and how can we prevent this form of dissemination of the bacilli. It is often said among the laity, "Oh, my friend has only a dry cough, he does not expectorate." Let me tell you there is no such thing as a dry cough. Let any one cough, holding a mirror in front of his mouth and you will see tiny drops deposited on the surface, hence the name drop infection. These drops of saliva may contain bacilli. How do we prevent their doing harm? Simply by being polite. Tell everyone to hold their hand or handkerchief in front of their mouth when coughing.

These are the four sources of infection. Seemingly enough to frighten anybody, yet we need not be unnecessarily scared. Nature is exceedingly kind. When we are in good health we have in our nasal secretion a bactericidal substance, and if you happen to inhale a few bacilli, do not get scared to death and feel that you have tuberculosis, because the bactericidal secretions of the nose, kill the bacilli before they can do harm; and then we have furthermore the phagocytic action of the blood; in other words, when in good health the white blood corpuscles act as cannibals to the foreign micro-organisms which try to take hold of the system. Thus we have a second line of defense. We must be below par and enfeebled to become consumptives.

What about hereditary tuberculosis? Inherited consumption does not exist. Consumption is never directly inherited. A predisposition is inherited, but you may ask me, if tuberculosis is not inherited, how do you account for so many cases of tuberculosis in childhood? Because there is a post-natal infection, which in the homes of the poor and ignorant is acquired very easily.

The most common modes of infection during early childhood are, perhaps, the following: The consumptive mother caresses the child and kisses it on the mouth; she prepares the food, tasting it to judge its temperature and flavor through the same rubber nipple, or with the same spoon the child uses, and thus unconsciously conveys the germs of the disease from her own mouth to that of the child's. Later on the child will play on the floor in the room and should there be a consumptive in the family who from carelessness or ignorance is not prudent in the disposal of his expectoration, the child is likely indeed to be infected. The little one, while playing on the floor, may with great facility inhale the bacilli floating with the dust in the air and can thus acquire tuberculosis by inhalation, the full development of which may only take place in later years when the origin will not be thought of. Again, the little child touches everything it can take hold of, infecting its fingers thoroughly, and by putting them in its mouth may cause tuberculosis by ingestion which will gradually develop into consumption of the bowels. Lastly, should the child's nails be neglected, it may scratch itself with the infected fingers and thus inoculate its system with the disease. Tuberculosis of the skin, or lupus, may result from such an accident.

Even later on, when the child goes to school, the danger of contracting tuberculosis is not removed. The child may become attached to a little consumptive companion and they may kiss each other when going to or coming from school; or, again, the infection may result from the not unusual practice of swapping apple cores, candy, chewing gum, etc.

I will read you the alphabet of rules which I have compiled for school teachers to give to children and explain to them. In it you will find all the many sources of infection during school life:

#### SIMPLE RULES FOR SCHOOL CHILDREN TO PREVENT TUBERCULOSIS.

Every child and adult can help to fight consumption. School children can be helpful by complying with the following rules:

Do not spit except in a spittoon or a piece of cloth or a handkerchief used for that purpose alone. On your return home have the cloth burned by your mother, or the handkerchief put in water until ready for the wash.

- Never spit on a slate, floor, sidewalk, or playground.
- Do not put your fingers into your mouth.
- Do not pick your nose or wipe it on your hand or sleeve.
- Do not wet your finger in your mouth when turning the leaves of books.
- Do not put pencils into your mouth or wet them with your lips.
- Do not hold money in your mouth.
- Do not put pins in your mouth.
- Do not put anything in your mouth except food or drink.
- Do not swap apple cores, candy, chewing gum, half-eaten food, whistles, bean blowers, or anything that is put in the mouth.
- Peel or wash your fruit before eating it.
- Never cough or sneeze in a person's face. Turn your face to one side or hold a handkerchief before your mouth.
- Keep your face, hands and finger-nails clean; wash your hands with soap and water before each meal.
- When you don't feel well, have cut yourself, or have been hurt by others, do not be afraid to report to the teacher.
- Be just as careful and cleanly about your person at home as in school.
- Clean your teeth with toothbrush and water, if possible, after each meal, but at least on getting up in the morning and on going to bed at night.
- Do not kiss anyone on the mouth or allow anyone to do so to you.

To prevent the predisposition I have spoken of, we must look out for the child at school. Their brains must not be taxed to the detriment of physical development. I believe in recreation and spending this time out of doors, and believe furthermore that every child should have a chance a few times during the day of taking deep breathing exercises. I should like to see every school have a school physician, to watch over the little ones, and if anyone has a tuberculosis appearance, call the attention of the parents to that, and tell them what to do. I believe that every child should have enough time to sleep. Our children at present do not sleep enough, and they have too much work to do. They are driven out of their beds in the morning to attend to their lessons and they are

kept up late in the evening to attend to their lessons again, and then we wonder why they are crippled in mind and body. Another thing I believe in is swimming lessons. This will be helpful when in danger of drowning, and give a bath to some youngsters who would rarely get one otherwise.

We have now to say a few words on the duties of certain men and women who can be helpful in this fight against the "great white plague." Who comes after the teacher? The clergyman or preacher. I always maintain that a badly ventilated church is as bad as any other badly ventilated place. Sunday-schools should be well ventilated and the individual communion cup is preferable to the common one.

Then we have any number of men who can be helpful in the fight against tuberculosis—the storekeeper, the shopkeeper, the man who has a factory and employs a large number of people. All can be helpful by providing sanitary quarters, by paying living wages and giving reasonable hours for meals, and by seeing that the workshop and store is well ventilated, and that employees are not too many hours on their feet, and have a week or two each year for vacation.

Now I come to the subject of Cure. How do we cure tuberculosis nowadays? By the unstinted, judicious use of God's fresh, pure air twenty-four hours out of twenty-four; good, substantial, plain food—milk, meat, eggs and vegetables; plenty of good pure water, inside and outside; sunshine when we have it; and all this under the constant and watchful eye of an experienced physician, who will, if these hygienic and dietetic measures do not suffice to cure the patient, help along with a little medicine. There is no specific treatment, there is no specific climate, and there is no particular medicine for consumption.

The idea that tuberculosis is prevented or cured by alcohol or whiskey is, of course, entirely erroneous. Tuberculosis has never been prevented and has never been cured by alcohol. On the other hand, alcohol produces the most decided of any of the predisposing conditions we know of. Do you know that there is more alcohol sold in the United States in the shape of patent medicines than in whiskey over the bar? Jacobi estimated the quantity of patent medicines sold every year to amount to \$200,000,000.

Consumption is a disease which can be cured in any and every climate of our temperate zone. It is not necessary to send patients to California.



Colorado, or other places. I do not deprecate the value of climate, but we are here in the presence of a disease which is almost universal. The majority of consumptives are the laboring men, and we have to cure these men and women in the same climate where they will have to live and labor after their restoration to health. I maintain that a patient treated and cured in the home climate, while it may take a little longer, has a better chance of remaining cured. But can we cure the consumptive patient in his home when he is poor? No, we cannot.

In his poor home, he has not enough light, not enough air, not enough food, and very rarely proper medical supervision. For him we must have a sanatorium. This an institution for the exclusive use of consumptives. There the patient is placed under constant medical supervision. He has good food and plenty of it; fresh air, day and night. By the way, never be afraid of night air. The fear of night air is a night mare. Night air is as pure and fresh as day air.

In the sanatoria just mentioned, the patient is thoroughly trained; knows what to do and what not to do. He learns what to do in order not to get fresh colds. In a sanatorium his chances of cure are seventy-five per cent. to eighty per cent. When he returns home to his former environments, he becomes a sanitarian and teacher to his neighbors.

What other advantage has a sanatorium? It has been said that institutions frequented by consumptives are a danger to the neighborhood, but in Germany and in American villages in our own country, where a number of sanatoria are situated the mortality from tuberculosis has materially decreased among the villagers of the neighborhood since the establishment of these institutions. The villagers living near these sanatoria involuntarily imitate the cleanly habits of the sanatorium inmates. Thus a well-equipped sanatorium is a blessing and not a danger to the neighborhood.

What is to be done in a city like Brooklyn in the fight against tuberculosis? You have a splendid class of physicians who inaugurated this meeting. You want to have more of their kind to hold meetings like this. You must have a tuberculosis dispensary. You will not solve the tuberculosis problem in Brooklyn, you will not be able to reduce the mortality from tuberculosis unless you have this dispensary, which some wise judge thinks you ought not to have. In a dispensary the patient is edu-

cated, he receives advice and medicine, and from this dispensary cases for sanatoria are selected. Of course, medicine alone from the dispensary will not cure the consumptive. With every tuberculosis dispensary we need a diet kitchen. See that the patient gets milk tickets or food tickets. Then only can you do good work in the dispensary.

Furthermore you ought to have a sanatorium for the early cases and a hospital for the advanced cases, because it just as essential to take away the hopeless cases out of the tenement homes, so that they will not infect others. But even if you multiply these institutions, according to the needs of a city, you will be able to solve the tuberculosis problem in a measure only. For no matter how many lectures physicians give to the masses, no matter how many dispensaries you have, how many hospitals or sanatoria you have, so long as you allow dark, dreary tenement houses to exist, so long will you not be able to solve the tuberculosis problem. You want to begin at the bottom; remove the sources of infection, remove dark, dreary tenements, where light never enters, where the tenants are badly housed and underfed; remove the sweat shop and the unhealthy environments, and then you may have a chance. It is not easy for physicians alone to do this. You have again to appeal to the community and to your rich fellow citizens.

In conclusion, I express the devout wish that our philanthropists will at once realize that we have at this time enough libraries, that we have enough churches and cathedrals and enough monuments; and to these good men and women, who devote their money to such seemingly good purposes, I want to say that they will serve their Creator just as much and better by improving the condition of the poor, by seeing that they live in houses where sunshine enters and where some pleasure will be derived from home life. People say it is a disgrace to go to a saloon and take a drink. I have the greatest sympathy for the poor man who works twelve out of twenty-four hours and then gets a badly prepared meal in a dark, dreary tenement. I do not blame the man if he goes to the saloon and takes a drink for cheer. Begin at the bottom; improve the housing of the poor, improve the condition of the laboring man in general, and you will not only solve the tuberculosis problem, you will not only solve the liquor problem, but you will solve in a large measure the social problem, and that is what we are all striving for—to improve the condition of our fellow men.

## THE BROOKLYN GYNECOLOGICAL SOCIETY.

A. A. HUSSEY, M.D., Editor.

STATED MEETING, MARCH 2, 1906.

The President, J. O. POLAK, M.D., in the Chair.

### CASE OF CÆSAREAN SECTION.

DR. C. JEWETT reported his sixteenth Cæsarean section, which he had operated upon the day before. The woman was four feet in height, and pregnant for the first time. She had a lumbosacral kyphosis and also some scoliosis. The diagonal conjugate was too long to be easily measured, the bis-ischial diameter was about six and one-half cm., and on the right ischial spine was a hyperostosis which projected inward, still further lessening the pelvic space. The abdomen was pendulous, the head not engaged, narrowness in the transverse diameter preventing. Three weeks ago she had a hemorrhage, which was undoubtedly due to a low implantation of the placenta, yet there was not complete placenta prævia. The patient was kept under close observation in the hospital, ready for immediate operation should the hemorrhage begin again.

The operation was done yesterday, to-day being the expected date of labor. Premonitory pains were already present. The incision began about 5 cm. above the umbilicus and extended to within 5 cm. of the symphysis. The high abdominal incision has the advantage of bringing the uterine incision in the upper and thicker part of the uterine wall. Theoretically it may lessen the risk of hernia, but we don't get hernia any oftener in low incisions. Davis, in a recent report of a number of cases published in the Bulletin of the N. Y. Lying-in Hospital, advocates opening the abdomen above the umbilicus and the uterus at the fundus. The margins of the uterine incision are then caught with traction forceps. This he thinks has many advantages over the lower incision. His reasons did not especially appeal to the speaker.

While the Müller's incision at the fundus uteri diminishes the risk of adhesion to the abdominal wound it increases the chances of intestinal adhesions, which are worse.

The uterine incision in his case was small, the head coming through it with some difficulty, but this did not retard the delivery which was

completed in forty-five seconds. The child breathed directly after birth. Very frequently the child is asphyxiated and has to be resuscitated, but he had given no morphine—only atropine, 1-150 grain—before the operation. Morphine the speaker thought, may be a contributing factor in the asphyxia usually observed. The placenta of membranes came away with great difficulty. Usually placenta and membranes are easily removed. Both in this case were abnormally adherent. A further complication was the absence of uterine contractions although the woman had ergot hypodermically before the operation and no cervical ligature was used till some time after the uterus had been emptied of child and placenta. The membranes tore, and although a fragment was removed with dressing forceps some membrane still remained.

Many writers object to the cervical tourniquet on the ground that it hinders uterine contractions. In the case just reported, being annoyed by bleeding, he finally applied the constrictor.

While an assistant who is trained to the work can control the vessels perfectly by manual compression, such an assistant is not always to be had, and in any case the control by the constrictor is absolutely sure and the operator has no concern about hemorrhage. The kind of tourniquet the speaker used was a thin walled rubber tube which when taut flattened out into a band of about one inch in width. When he took it off, the uterus for the first time began to contract, but the woman had then had about 60 minims of ergot hypodermically, which had not had time to take full effect before. The uterine suture was with No. 2 chromic gut. The sutures were made to engage a large mass of muscle, the serous and mucus coats not being included. The deep sutures were then covered by making a peritoneal welt over all with a thin running catgut suture. This he thought an important part of the technic, for the reason that the peritoneal surfaces unite within a few hours and effectually seal the wound against leakage. Yet many take no pains to avoid the mucosa nor do they separately suture the uterine peritoneum.

The uterine incision Dr. Jewett thought should be made in the median line. To ensure this the uterus must be held centrally in the abdomen by the assistant during the incisions. After the operation it falls to the right, and the uterine and abdominal suture lines not lying in contact, the danger of adhesion is diminished. Adhesion to the omentum and dragging down stomach and transverse colon as involution progresses is prevented



by placing the omentum behind the uterus before closing the abdomen.

### *Discussion.*

DR. C. R. HYDE said he had the pleasure of assisting Dr. Watt at the Cæsarean section of which Dr. Jewett spoke, and what interested him particularly was that during the time the tourniquet was in position to control hemorrhage, the uterus was in a very flabby, relaxed condition, and very blue and so soft it shook like jelly. As the tourniquet was released and the arterial blood began to pervade the whole uterus, it contracted very promptly and firmly. It was interesting to note this contracting quality of arterial blood.

DR. J. O. POLAK said that the point Dr. Jewett had made regarding the tourniquet was interesting, because unless one has a skilled assistant, one who is used to holding the broad ligaments, he may be handicapped in his work. He remembered doing a Cæsarean section, and his assistant, who was compressing the broad ligaments, succeeded in resisting his efforts to pull the child through the wound by compression on the head. The hæmostasis can be as well controlled with less traumatism to the broad ligaments by digital compression than by the use of the tourniquet.

In suturing up a Cæsarean wound there is an advantage in the using of long straight needles, and turning out the cut edges so that the two surfaces are parallel. In this manner one may go through from side to side, skipping the serosa and mucosa, and do it very rapidly.

Dr. Jewett's case brought to the mind of the speaker an interesting one of a dwarf, three feet nine inches, with a marked lordosis, and a contracted outlet—a typical funnel-shaped pelvis—although the contraction was not of the degree reported by Dr. Jewett, neither was it complicated by a knob on the right spine. This case was sent in to the hospital for a Cæsarean operation, and she was kept under observation during the last three or four months of pregnancy. After carefully measuring and estimating her pelvis as well as estimating the size of the child by abdominal palpation and mensuration, both Dr. Pomeroy and the speaker decided to let the girl fall into labor and let the cervix fully dilate before doing a Cæsarean. In this patient, notwithstanding the marked degree of lordosis, which caused the child to lie transversely with its back forward and its legs and head in the flanks, he was able after full dilatation by podalic version to deliver a  $7\frac{1}{2}$  pound child

through the pelvis. It was interesting to note how the head could be brought through, with the aid of supra-pubic pressure made by a skilled assistant, by adjusting its diameters to those of the pelvis.

Another case Dr. Polak referred to, that he had reported two years ago, in which he had done a Cæsarean section for an impacted brow presentation and subsequently delivered the woman by a version, the position was a R. M. P. This was the second case in which he had saved the patient a Cæsarean section by waiting until labor had begun. He simply spoke of these cases because we are apt to be carried away with our desire to do Cæsarean sections, and it had been his fortune in these two cases to deliver a living child by version.

DR. C. JEWETT in closing spoke of the importance of cephalometry. There are several methods of measuring the head but no very definite results have been reached by most of them till recently.

Stone, of New York, made cephalic measurements before labor in forty cases at the Lying-in. In a very large proportion of cases the measurements after delivery were identical with those obtained before. In none did the error exceed five-tenths cm. His method is one we have all used perhaps more or less imperfectly. It is an improvement on the Perret method. The head is caught between the hands, held upon the abdomen as in palpating the cephalic pole of the fœtus. The hands rest upon occiput and sinciput, respectively. Dr. Stone places the poles of the pelvimeter upon the abdomen between the ring and middle fingers of the examiner's hand. This position corresponds to the extremity of the occipito-frontal diameter on each side. If the poles of the pelvimeter are pressed firmly against the head no allowance is required for the thickness of the abdominal wall as practiced by Perret. The pelvimeter is handled by an assistent.

The bi-parietal is obtained by subtracting about  $2\frac{1}{2}$  cm. from the occipito frontal or, more accurately, 2 cm. in small and  $2\frac{1}{2}$  in large heads.

### PRESENTATION OF INSTRUMENT: SILVER PLATE FOR THE CURE OF VESICO-VAGINAL FISTULA.

DR. C. R. HYDE presented a silver plate devised by Dr. Ernest Palmer for the cure of vesico-vaginal fistula, also for use in repairing lacerations of the posterior wall, and again in abdominal sections if retention sutures are employed. It has been used in five cases of vesico-vaginal fistula, in many abdominal sections and in one posterior wall operation.

The plate simply prevents the cutting in of the sutures and assures perfect coaptation of all layers. He stated that Dr. Palmer's method of repairing vesico-vaginal fistula is absolutely and radically different from all methods now in vogue, especially that of Sims and Emmet. The edges of the fistulæ are denuded simply to freshen them, and the sutures, which are of silk-worm gut, are passed through all the layers, *including the vesical mucosa*, and then tied over the ridge of this plate. There is no attempt made to secure the classical beveled denudation, nor to keep the sutures from passing through the mucosa. There is no layer method of suturing. After the operation a self-retaining catheter is introduced into the bladder and retained there two weeks, during which time the patient is given a mixture of sodium benzoate and boric acid to decrease the urine's alkalinity and render it bland. Water is given in large quantity and the bowels are well regulated. The urine is drained into a receptacle by the patient's bedside.

Dr. Palmer's plates for fistulæ operations were all made of sheet lead, which could be easily moulded to conform to any anatomical peculiarities in the field of operation. He believes that the acid vaginal and urinary secretions, coming into contact with the lead, form a lead salt which acts as an astringent during the healing of the freshly incised surfaces. The silver plate shown this evening was made especially for the operation on the posterior wall. It is well known that pure silver exhibits an antiseptic property. Block tin was suggested, its use as pessaries being much in vogue in Germany and because it can be easily moulded into any desired shape.

The last case in which the lead plate was employed for the cure of a vesico-vaginal fistula is interesting. The patient was torn during labor by one of the dilating cervical bags now in use, the tear extending from a point in front of the cervix and including the anterior vaginal wall to a point about one inch from the meatus. The tear, at the time of operation, three weeks later, was ragged, the tissue friable and somewhat incrustated with urinary phosphates, while the urine had a decidedly ammoniacal odor. Two chronic sutures repaired the cervical lacerations. The edges of the fistula were then denuded, including the vesical mucosa, and ten silk-worm gut sutures approximated the freshly incised edges. The ends of the sutures were brought through the holes in the plate in order, tied tightly over the

ridge and left in place two weeks. After the removal of the sutures, only a fine linear scar showed and the patient was discharged cured. The same result was obtained in the other four cases. The speaker had seen quite a few vesico-vaginal fistulæ results, but he never saw a neater or finer scar than the one just spoken of.

To one who had been brought up in the Emmet school, as he had been, and had been taught that under no circumstances should sutures, in this kind of work, include the vesical mucosa, because of the absolute certainty of failure from formation of urinary fistulæ, he could only say that the operation was not only a novelty, but a most overwhelming overturning of ideas inculcated from the master of this kind of surgery. He confessed he was not only surprised, but distinctly positive that nothing but failure would result, and frankly told Dr. Palmer so. Dr. Palmer, however, had no misgivings, but remarked that he knew the operation would succeed, as it did. When we who do this work think of the care we exercise to prevent our sutures from including the mucosa, and when we think that only ten silk-worm gut sutures were used—no silver wire—and that the sutures included all layers, no attention being paid to anatomical relations, the results have been little short of surprising. The plate evidently acts by exerting counter pressure against all the layers, so that they are brought up firmly against the plate and all dead spaces obliterated. It prevents any of the sutures from cutting into the vaginal wall. One distinct advantage is the ease with which the sutures can be removed, simply by running a scissors edge along the plate and cutting each suture in turn as easily as though they were on a table in front of you. In conclusion, although it seemed heresy, Dr. Hyde said he had seen vesico-vaginal fistulæ cured with sutures which included the mucosa, with no silver wire nor beveled denudation, and by employing no layer method.

#### Discussion.

DR. C. JEWETT said it seemed to him this device had a distinct mechanical advantage for good coaptation and for ease in removing the sutures. The question had interested him in connection with Dr. Palmer's experiments and he had tried a silver plate on the abdominal wound, tying the sutures over it when he was using sutures through the skin. The mid ridge in Dr. Palmer's plate probably has the



effect of giving firmer support to the wound edges. There is one difficulty in the use of this plate—that is the necessity of getting the sutures precisely in line with the perforations in the base of the plate.

He understood the doctor that he denudes the mucosa of the bladder. He asked if that did not cause troublesome hemorrhage into the bladder during operation.

Usually in chronic cystitis benzoic acid or a benzoate has been used to correct alkalinity. In a recent case operated upon, two weeks ago, he used urotropine. The bladder was catheterized a good many times in the course of the first few days after operation, yet the woman to-day has no irritability of the bladder whatever. Urotropine not only renders the urine acid as a rule but it has the further advantage that it makes the urine aseptic and thus possibly helps to insure union.

PAPER: "MECHANICAL METHODS OF DILATING THE CERVIX IN THE LATER MONTHS OF PREGNANCY," BY DR. R. H. POMEROY.

#### *Discussion.*

DR. C. JEWETT said that he was sorry that he had had no experience with this bag. With regard to dilation in general, he did not think that the steel dilators are very much used in this country—at least not the Bossi instrument. For his own use he preferred the Gau. He did not like the Bossi for the reason that the dilating force is not equally distributed over the circumference of the resisting girdle and the degree of force used cannot be safely regulated. Of the hydrostatic bags that have been used hitherto the only ones of much value are the Charpetier de Ribes and the Voorhees. The Pomeroy bag appealed to him as a distinct improvement on the Voorhees bag. With the Voorhees bag a weight must be used or intermittent traction. That often annoys the patient. The Pomeroy bag insures continuous automatic traction.

The principal uses for water bags are in prolapsus funis, placenta prævia, and, in certain other cases, for inducing or accelerating labor. When employed for the latter purpose several members of the Society had failed to secure full development of the lower uterine segment, such as occurs in natural dilation. It occurred to him to ask Dr. Pomeroy if the upper compartment of his bag could not be so constructed as to diffuse the dilating pressure over the entire

lower uterine segment. Could this be done by making the upper surface strongly concave to fit the convexity of the head, thus extending the hydrostatic pressure higher upon the uterine wall? To do this it might be necessary to secure the center of the base of the upper cone against being forced upward as the bag is filled.

DR. R. L. DICKINSON thought all methods of dilatation of the cervix, except perhaps this one, present a grave defect—they do not and cannot imitate nature, because they *dilate without effacing*. After the most considerate and prolonged manual dilatation, after the most careful dilatation with Voorhees bags, there still remains a confused irregular, lumpy cervix that is very much in the way. However, he was very fond of bag dilatation, and often used the Voorhees bags. All bags are likely to produce a great pocket between the internal os, or the contraction ring, and the external os. That pocket is an unfortunate matter. In certain cases the bag seems to have built a contraction ring of its own above it. The speaker has been fond of using a smaller Voorhees bag in the cervix and a larger bag in the vagina, and in that fashion had gradually attempted to put pressure upon the inside of the cervix and upon the outside of the cervix at the same time, it being well known that the contraction inside the uterus is awakened much more actively if the vagina is distended.

The cases must be very few, Dr. Dickinson said, where the Bossi dilator is indicated. He presented a strong protest against it in an annual address in Chicago, in the height of his popularity, and personally believed that manual dilatation has a much larger field than any other method.

There is a mild infection risk to the Voorhees bag. If one tries to induce labor by intermittent traction on the tube, one has to bring the tube out of the vagina and let it slide back. He had tried to overcome that difficulty by running the tube out of a hole in a thick guard of gauze.

The speaker believed that there is a large field in eclamptic cases for free incisions, and believed that we do too much obstetrics and too little surgery on some of these grave cases. It is so simple and easy a matter to decide where your incisions shall be. The dangers from infection are less rather than greater, and he thought that free incision and rapid extraction present certain advantages in the way of speed and clean surgery and good surfaces to unite.

Dr. Dickinson wanted to know how many sizes Dr. Pomeroy would deem necessary for a well-equipped obstetrical bag, and how perfect the *obliteration* is, how much the lower bag shoves the cervix up out of the pelvic cavity in imitation of the normal method, for there, to the speaker's mind, rested the whole secret of the doctor's success. If he can imitate nature and *obliterate and elevate* at the time he dilates, then he succeeds—not otherwise. Then he does what no other dilating method approximates.

DR. A. A. HUSSEY said that his experience with this bag was limited to the case that Dr. Pomeroy mentioned. He had had experience with manual dilatation, and had found few cases that he could not dilate satisfactorily with his fingers, or with branched dilators. In these cases the muscle fibres, although temporarily stretched, will contract down again. That would perhaps describe the condition of the cervix of the woman Dr. Pomeroy mentioned. There was no difficulty in dilating the cervix after the bag was introduced. But the cervix contracted again, was again dilated and once more it contracted, and the condition remained the same as before.

The case was one of eclampsia. The patient was a strong Irish woman, primipara, 29 years of age, she was between six and seven months pregnant. Had two convulsions previous to the anæsthetic. At the first sitting the cervix was dilated, and two bags introduced, the smaller and the medium size, and withdrawn, and yet the cervix contracted again, so that it was not possible to engage the head or to do a version. It was then considered wise to let the woman go for a while and make a further attempt later. A Voorhees bag was introduced and the vagina packed. The woman was put back to bed and active treatment instituted to relieve her toxæmic condition. The following day another attempt was made to dilate the cervix, and although the cervix relaxed sufficiently, there remained a contraction ring above the cervix which could not be reached by the bag. As Dr. Pomeroy suggested at that time, the only thing to do was to let the woman go, or to make an incision of the cervix anteriorly and deliver the child by a vaginal Cæsarean. That did not seem to be indicated as the general condition of the patient was improving, so she was put back to bed, and two days later she went into labor and was delivered spontaneously—and made an uninterrupted re-

covery. This case illustrates the difficulties of mechanical dilatation in a certain class of cases. In the sixth or seventh month of pregnancy before the circular fibres of the lower uterine segments have been stretched by the long continued pressure of the foetal pole. Mechanical dilatation is a very different process from dilatation of term, and it may be impossible with any of the present methods. These are the cases for vaginal Cæsarean, which in the hands of a skillful operator is undoubtedly less dangerous than prolonged and futile attempts at dilatation.

As a mechanical device Dr. Pomeroy's bag is in a class by itself; it is so far superior to any mechanical dilator in use at the present time. There is no doubt that in the majority of cases where artificial dilation is required it will do the work quickly and with the minimum damage to the cervix.

DR. J. O. POLAK said that a year and a half ago Dr. Pomeroy had furnished him with one of these bags, and he had used it in five cases. He had failed absolutely in one case to get dilatation. This was an eclampsia at six months. He could neither dilate her manually nor with a bag, and had to resort to incisions in order to get dilatation sufficient to deliver her.

In the other cases the bag had given excellent satisfaction. It did what Dr. Dickinson calls for in his natural process—dilation and effacement. The cervix instead of presenting that rigid ring which we get after dilation with a rent on one side, was a soft flabby ring that did not contract down on the after-coming head when version was done and extraction attempted.

Dr. R. H. Pomeroy in conclusion, said in regard to the conditions met with in the sixth, seventh or eighth month, that there is an actual physiological difference in the consistency of the uterus in its lower segment at that time, that it has not been softened and reduced to the consistency that it has at or near term.

The speaker said that he had a hope that by the construction of this bag in the form of the birth canal, if it can be maintained high up in the uterus, in the proper shape and size, and can be dilated to its full capacity it would necessarily obliterate that contraction ring. He had met in no case he had used it in, at or near term, any evidence after the expulsion of the bag, that there remained a contraction ring.

He believed that it is possible with such a construction as this to effect complete dilation



of the canal, but it will be necessary for the apparatus to be retained there with its anchor compartment above the point of obstruction. One peculiar physiological effect of this vaginal colpeurynter is that if the patient is not under complete anæsthesia it promotes active expulsive efforts on the part of the patient, even if she is under moderate chloroform anæsthesia. This, of course, accomplishes the dilation, not merely by the expansion of the lower compartment, but by the traction thereby, of the upper compartment through the cervical canal. It would appear that in order to have the apparatus efface all resistance it would be necessary to have the patient under sufficiently complete anæsthesia to dilate an apparatus of this character without any efforts at expulsion on the part of the patient.

As to the question of sizes, he had endeavored to work this plan out on a basis of two sizes, a smaller size that could be started through a one-finger dilation of the cervix, and that sufficiently large to allow the introduction of one that is to accomplish the rest of the dilation desired.

The speaker said he had no idea that this apparatus is for use by the general practitioner or that it is automatic in any sense. It is an apparatus for the use of one who understands the features of the case that he is dealing with and understands the mechanism of labor. He considered that an essential point in the possibilities of disaster had been avoided, such as the rupture of the bladder, by the construction of the larger bag with a pelvic curve.

The ring of Bandl, if it is a development of labor pains, of contractions of the uterus, cannot be the same as this resistance of the lower segment of the uterus that we meet with in the sixth or seventh month of pregnancy.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, MARCH 1, 1906.

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The President, T. B. SPENCE, M.D., in the Chair.

### THE TECHNIC OF OPERATIONS FOR HEMORRHOIDS.

#### *Discussion.*

DR. L. S. PILCHER presented a discussion of this subject, for which see page 189.

DR. H. B. DELATOUR thought this a very important subject in a way. It is a common, every day operation, he said, one resorted to by surgeons and by practitioners as well, and the method struck him as being very simple. One particular point in it as compared to the ordinary ligature operation seemed to him to be the probability of leaving a patent anus subsequently. It happens after many operations that the anus is so much narrowed by the ligature that a stricture results, and while Dr. Pilcher did not mention it as a point, from the operation described it would strike the speaker as being an unusual occurrence after this method.

The procedure of whipping over the clamp is a method Dr. Wight used to a considerable extent and described. The speaker did not know that Dr. Wight was the originator of it, but his method of removing hemorrhoids was in a way similar to this. He did not dissect up the skin flap, neither did he deliberately attempt to secure the blood supply above the clamp, but the method of whipping over the clamp was very similar to that described by Dr. Pilcher.

DR. J. B. BOGART said that during a visit to the Royal Victoria Hospital, Montreal, a year ago, he saw Professor Bell of McGill operate for hemorrhoids, and, as a dressing, he introduced into the rectum a very large drainage tube, about three-quarters inch in diameter, wrapped around with iodoform gauze. Professor Bell claimed for it the advantages that it supplies a dressing for the wound, makes concerted hemorrhages impossible, and also provides an escape for the gases that oftentimes trouble a patient after these operations. This tube was left in for two or three days until the time came to move the bowels, when it was removed and not afterwards replaced.

DR. R. W. WESTBROOK said that that method of dressing was used for a good many years at the Brooklyn Hospital, and there were differences of opinion regarding its value. As a rule a tube about half-inch in diameter was used. Most of the operators at the hospital used the clamp and cautery and had found it satisfactory. The advantage of the tube is that it prevents the œdema which is very common, especially after a clamp and cautery operation. The tube does not cause pain by its presence, but sometimes gives pain when it comes away, which happens with the first movement of the bowels. It facilitates the passage of gases, but there is not much difficulty

on that score in the ordinary hemorrhoid case where the sphincter has been stretched sufficiently. This method also guards against hemorrhage.

Personally the speaker had never known a case of hemorrhage to follow a proper clamp and cautery operation. We have all heard of such cases, but at least in none of those cases where we have used the tube have we ever had any hemorrhage. Where a proper pedicle and a thorough cauterization of the stump is made, not cutting it off too short in the clamp, and thoroughly searing the stump, secondary hemorrhage must be extremely rare, because he had never seen it. Ninetenths of the operations done at the Brooklyn Hospital have been by clamp and cautery. It is simply a quick and effective way, and as for contraction following it, if one leaves a quarter-inch strip of mucous membrane between the stumps, and does not dissect off too many pile bearing masses, these contractures do not occur. They ordinarily get along with taking off three pile-bearing masses and sometimes a fourth or a fifth small one.

DR. J. D. SULLIVAN said that years ago he practiced the ordinary clamp and ligature method of removing hemorrhoids. His experience at that time was that the patients suffered a great deal of pain, much more pain after the ligature than they now do after the clamp and cautery. Another point that he noticed was that if we removed much of the skin outside the mucocutaneous line that there was contraction afterward. He inquired from Dr. Pilcher as to whether there was much pain after his operation, and how many of these masses he usually removed where there was a circle of them around the anus. He presumed he removed two or three. If there is not quite a distance of sound integument left between these little points that he dissects out of the skin, there will be a contraction of the anus afterward. Of course, if we leave a good distance between them there is not likely to be a contraction. In one case in the speaker's experience he had an unpleasant contraction afterward, so much so that he had to anesthetize the patient and stretch and cut the anus a little. That patient suffered a great deal of pain. The speaker never removes any integument now and has not seen a contraction since adopting that practice.

He was very much pleased with the idea of grasping the upper fold of the mucous membrane

to check the hemorrhage. The choice of methods depends upon whether the ligature excision and suture, as applied by Dr. Pilcher, or the cautery are most serviceable. The ligature and suture will guard against immediate hemorrhage better than the cautery.

DR. WM. MADDREN said that one point occurred to him, that where there are a number of hemorrhoids, even after stretching the sphincter very thoroughly, after taking off with the cautery three or four hemorrhoids, in applying the clamp to the remaining piles, occasionally we separate the cauterized edges and get not only a certain amount of hemorrhage but also an open wound. It appeared to him this method would stand a greater strain in separating the parts for the removal of any remaining hemorrhoids and there would be less probability of hemorrhage on that account.

The whipping over of the stump, in the way indicated, he thought is done in a number of operations for cancer. He had done it several times in panhysterectomies for cancer where the cervical portion of the cervix and perhaps the upper portion of the vagina had to be removed.

DR. L. S. PILCHER, in closing, said that there are, of course, many minor cases, which will be relieved by much less severe procedures than any of those which had been referred to in his report. But when a case of disturbance about the anus has assumed a degree of development that causes the patient to suffer serious inconvenience from it, so much so that he is willing and anxious to submit to whatever surgical procedure is necessary for his complete relief, it comes in a different category. It is very desirable to stretch the sphincter in such a case, as the first thing done for the purpose of completing the diagnosis, even if for no other purpose. Many of the disturbances in the lower part of the rectum cannot be fully appreciated by the touch and the introduction of the speculum may be unsatisfactory. The very pressure of the speculum itself is sufficient to alter and obscure the conditions that are to be relieved, and he had felt that he never really knew what the exact condition was until the sphincter had been thoroughly relaxed by over stretching.

It was not the speaker's purpose to minimize other methods of procedure, which are thoroughly established and are efficient. The criticism, though, was fair and proper, however, that they were open to the objection of imperfection



of technic. Nature is often very kind to supplement imperfect efforts, and hence it is that various procedures, though they are open to criticism as to the perfection with which they meet all the indications, pathological and anatomical, in a case, nevertheless give most excellent results in the end. However, it is a wise and desirable thing for surgeons to seek after perfection as much as possible, and it was in line with that endeavor that he had thought interest might attach to the particular method that he had described.

As to the removal of intergument, which seemed to have occasioned more criticism than anything else that had been mentioned: in most of these cases that are old, there has been at times inflammatory infiltration of the part, the parts have been stretched, swollen and œdematous, and the result is a good deal of redundant tissue. In the typical picture of an old hemorrhoidal case there are many redundant tabs of skin, and the manner in which the thin hemorrhoidal mass rolls out and presents itself among projecting redundant masses of skin is familiar to all. After the ordinary ligature and after the ordinary cautery operation, the tendency to œdema of these parts is considerable, and he could readily appreciate how, in order to avoid this, the elastic pressure of the large tube Dr. Bogart had described might be a valuable agent, made and provided that the part was not particularly sensitive and would bear it, which the testimony would seem to be that it often does, although he should think that there was reason to believe that the sensitiveness of different individuals differed under the same conditions. Nevertheless even the use of such a tube does not remove the redundant skin, even though its œdematous infiltration may be largely prevented.

After one has made dilatation of the sphincter so that the anal outlet lies loose and flabby, one is particularly struck with this redundancy, and as one lifts out the pile, the redundant skin presents itself, asking to be taken out of the way. From the vertical incisions through the mucous membrane, the denudation is carried outwards in a triangular manner with the apex downward. A series of good linear cicatrices results, radiating from the anal opening. It depends on the case how many masses are taken away, and the possibility of taking away too much should always be borne in mind. In the ordinary fairly aggravated case one takes away three or four masses. The patients do not suffer as much pain as after the cautery.

## BROOKLYN PATHOLOGICAL SOCIETY.

MARCH 8, 1906.

PAPER: THE SURGICAL TREATMENT OF CHRONIC INDIGESTION—DISCUSSION.

(Continued from page. 184.)

DR. B. JOSEPH presented a specimen which he thought apropos of the subject. A woman came into the Nervous ward of the Kings County Hospital four months ago on the service of Dr. Whiton, presenting very indefinite symptoms, her general complaint being incessant vomiting. A very peculiar skin condition was that of general fibromatosis, being practically covered all over with fibromata, varying in size from that of a lemon to that of a split pea. She was transferred to the general medical service, and he believed that Dr. Bristow saw her and advised operation, claiming that the same condition that existed on the skin might exist somewhere obstructing the pyloric end of the stomach. She was in too weak a condition to be operated on. She died three days after Dr. Bristow saw her, when a post-mortem revealed the following condition: a tumor the size of a walnut situated at the lesser curvature of the stomach near the pylorus. There was transplantation in the pancreas. Microscopically, this tumor was found to be a fibroma.

The subject was a colored woman, 34 years of age, who had been complaining for two weeks before admission to the hospital. She said she had an attack of indigestion five years previously, which kept her in bed, and two weeks before admission she had a slight hemorrhage from the stomach. While in the hospital she vomited almost incessantly, and remedies were without avail. Death was due to starvation, although rectal feeding was restored to.

DR. H. G. WEBSTER stated that he would give very briefly the details of a case he had had under his care for some years. The woman, 42 years old, first called on him for the relief of an acute anemia due to an exaggerated condition of piles. She had been bleeding very freely, indeed, and had become so exsanguinated that her heart had ceased to act as it should and her whole system was being literally starved. An operation relieved that condition, but the anemia had gone so far that a general muscular relaxation took place, and evidently the stomach suffered with the rest of her body, because within a few weeks'

time she developed first anorexia and then vomiting which became persistent. She then developed pain in the epigastrium somewhat high and to the right, with constipation, rapid loss of flesh and a distaste for meat. In point of fact a mouthful of meat was sufficient to bring on a violent emesis. The stomach was mapped out and found to be enormously dilated and examination of the secretion showed that there was a total absence of free hydrochloric acid and the presence of lactic acid. Food had remained there for a long time, probably several days, judging from its appearance, and the diagnosis, confirmed by one of the eminent surgeons of this town, was an early carcinoma, which was supposed to be the ultimate cause of the general depression, in addition to the anemia. They were so certain of that, that she was admitted to operation, and a very generous median incision was made and the stomach thoroughly explored. It was even opened, and it was found to be entirely innocent of any condition except that of dilation. After a brief consideration it was decided to take a fold in the stomach and tuck it up, and a longitudinal fold, extending along the anterior surface from the fundus, well up to the pylorus, including a surface possible four inches broad, making a tuck of two inches, was folded inside the stomach, where it was secured by interrupted sutures of black silk and a layer of Lembert sutures was used over that. She made an uninterrupted recovery. At the end of six days she became so voracious that it was difficult to restrain her. She was pretty carefully watched and nothing was allowed to enter the stomach except a small quantity of water. However, one day while the nurse's back was turned she seized a vase containing eight or ten ounces of water and holding some flowers and drank this dirty water and apparently it did her good. She gained forty pounds inside of six months. Then her husband took to drinking and she began to go down again and to-day she is generally as badly off as before the operation.

This proved to the speaker's mind that the patient's condition was not due to any abnormal disarrangement of her abdominal organs, but was the result of nervous causes, atrophic if you please to call it, but dependent more upon the mental state than the physical condition. Dr. Webster said that he quoted this case partly to stem the violent course of operative fever that seemed to have broken out during the evening. We want, he said, a few cases to pass the stomach tube on and give hydrochloric acid. There are

only a few of us who can be surgeons, and it is well to bear in mind that there are some cases which even exploratory operation does not benefit.

DR. R. W. WESTBROOK said that the case spoken of by Dr. Webster was a strictly medical case and the surgeon tries hard not to get caught on such cases. He should resist the temptation to operate on these neurasthenic cases where there is a long train of symptoms with enteroptosis, gastropotosis, movable kidney, retroversion of the uterus, etc. Surgery does not do much for these patients. You may fold in the stomach and help out temporarily, but you do not cure the essential condition. Surgery aims to attack the essential conditions which you can cure.

Speaking about essential underlying conditions, he would like to say a word about liberating adhesions. The presence of adhesions means an underlying inflammatory cause, and many of these cases are cases of ulcer which require a gastro-enterostomy to be cured. They may be temporarily relieved by stripping up the adhesions, but the symptoms may return.

As to Dr. Lincoln's question, the general opinion is that these cases not presenting obstructive symptoms should not be operated on. In such a case two years ago he did a gastro-enterostomy and relieved the man's pain entirely. He went back to work, supported his family for eight months and lived one and a half years. That man was a wreck and suffered tortures. He was in bad shape the day of operation and the day after operation he was hungry. He made a nice recovery, and was for a long period relieved of unusually severe pain. Cases Dr. Westbrook has had since then have not turned out so well. While the operation is justifiable as a palliative one, you can not offer much hope of relief in cases of advanced cancer of the middle portion of the stomach.

DR. W. F. CAMPBELL, in conclusion, said that he saw no reason if a case is gotten early enough and too much of the stomach is not involved, why the cancer could not be taken out, and he thought that is the general opinion of most operators. The trouble is we do not see them early enough, and the stomach is so much involved it is absolutely useless to operate on them.

The great feature of Pond's Extract Antiseptic Cream is its remarkable soothing properties. In the most irritable conditions of the mucous membranes its use is followed by prompt relief, and in all the inflammatory skin lesions it has a wide range of usefulness.



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## THE BROOKLYN EAR AND EYE HOSPITAL.

We believe the physicians of this borough will be interested to learn that it has been finally decided to leave the Brooklyn Eye and Ear Hospital where it is and to spend between forty and fifty thousand dollars on improving the present building.

For some reasons the hospital might have been removed to advantage, in that a new hospital would necessarily have to be an up-to-date building in every respect. This was not done because of the difficulty in raising additional funds. Its present accessibility was also a determining factor. The present site could hardly be bettered in this respect.

The dispensary department of the hospital is the largest of any hospital in the city and few but the physicians engaged in it realize the immense amount of work which is rendered to the city's poor in a department which to the benefited is of the very highest value. Since the inauguration of the system of inspection of doubtful cases by the special hospitals of Brooklyn and Manhattan Boroughs very few but the really needy are admitted. At best, the refitting of the old hospital should be regarded as but a temporary expedient, and preparation for the collection of funds for a building worthy this city should be at once made.

## WALKING A HYGIENIC EXERCISE.

The remarkable performance of the veteran walker, Weston, is interesting to the medical

man less as an athletic feat than as a severe test of the circulatory system of an elderly athlete.

It is well known that youthful oarsmen, runners and other devotees of athletics develop a muscular hypertrophy of the heart. This, as age advances, and especially when the transition from an active to a sedentary manner of life is sharply demarked, is apt to settle into degenerative changes. In other words, once the athletic habit is established, it is dangerous to lapse completely therefrom, even in advanced age. Instances of this are numerous, the case of the famous English teacher, Dr. Arnold, being a well-known example.

Instances of famous athletes becoming victims of degenerative changes of the circulatory system comparatively early in life are so numerous that all physicians are more or less familiar with them. The average prize fighter too often finds that in after life the employment readily fitted for him is proprietorship in a saloon, where the craving for artificial stimulus to his relaxed heart walls is readily accessible and always, ultimately, fatal.

It is refreshing to note that the walker, Weston, has been able to continue his early habits successfully, because the American climate is so frequently given as an excuse for one's dropping out of the habits of taking even moderate daily exercise. During practically all of the time intervening between his two record walks from Philadelphia to New York, Weston has resided in America and has done his walking out of doors.

Dickens, who was a famous walker, was accustomed to pride himself on his amateur victories in walking "stunts" with his American friends. There is no question but that England and a great part of the Continent are more fortunately situated in respect to their more equable climate for out-door athletics than are we. To the average American the belief that he cannot afford the time to walk is, however, the greater deterrent to this form of exercise. We do not wish to convey the impression that walking, or exercise in any form, is necessary for everybody. Many live to good old age without exercise, among them many well known brain workers, who have never indulged in any form of exercise, habitually or willingly, in their lives. The fact remains that most persons, especially those who in youth have been accustomed to an out-door life, will, as a rule, live longer and better enjoy living while they do live, with a moderate amount of daily exercise in the open air.

**GEORGE RYERSON FOWLER.**

Dr. Fowler was a distinguished physician of extraordinary parts. As a Brooklynite his career was an inspiration to many of his fellow-workers in this city. The linking of his name with the Library of the Medical Society of this county by the erecting of a tablet on its walls appeals to the profession as fitting and appropriate.

**ACCEPTANCE OF MEMORIAL TABLET.**

BY WILLIAM FRANCIS CAMPBELL, M.D., PRESIDENT  
OF THE MEDICAL SOCIETY OF THE  
COUNTY OF KINGS.

At this season of the year when nature is repeating the story of the enduring life, in this hall where the echo of our colleague's voice has scarcely died away, it is fitting that we his brethren, neighbors, friends, should meet to offer a garland of gentle remembrance to one whose life is a priceless asset.

Not for his sake, but for our own would we crystallize into permanent form our estimate of his character, our appreciation of his work, our obligation to his splendid service. Rich, indeed, is the institution that can chronicle such a life as his.

On behalf of the Medical Society of the County of Kings, I accept this Memorial Tablet as a fitting tribute to a fine and fragrant character, as the expression of our faith in the permanency of character, the supremacy of service, the triumph of worth.

We his brethren will often linger at this shrine, and the cold bronze will be transmuted into the living presence as we ponder the inscription which epitomizes his career.

"A servant of mankind, a friend of the suffering, a brother amongst brethren. Wise in counsel, sagacious in debate, courageous in the hour of danger, undaunted in the face of death. His life an inspiration to the young, a challenge to his peers, an example to all."

And when we his contemporaries have fallen by the wayside, the spirit of this occasion will descend upon the coming generations as they read his works, cherish the character, and exult in the splendid tradition of George Ryerson Fowler.

May 27, 1906.

At a meeting of the Board of Regents of The Long Island College Hospital, held April 10, 1906, the following minute was adopted:

The late ROBERT OGDEN DOREMUS, A.M., M.D., LL.D., was appointed Professor of Chemistry and Medical Jurisprudence in The Long Island College Hospital on December 22, 1859, and lectured on those subjects from the beginning of the first regular term of the College in

1860 to the end of 1863. He also established a laboratory for practical instruction in Chemistry and Toxicology.

As a member of the first Faculty of the College, Dr. Doremus, here as elsewhere, was a leader in the cause of medical education. He had as colleagues Doctors Austin Flint, Sr., Frank H. Hamilton, James D. Trask, Joseph C. Hutchison, John C. Dalton, DeWitt C. Enos, and Edwin N. Chapman, of which distinguished company he was the last survivor. Those illustrious men stood sponsors for the infant institution of learning, giving it rank among the foremost and establishing a standard of instruction for succeeding years to emulate.

A profound scholar in his chosen subjects, Dr. Doremus had rare gifts in imparting his knowledge. His teaching has been an inspiration to thousands of students in the search for truth, while his life has been an example of devotion to the highest ideals of his profession.

The Board of Regents of The Long Island College Hospital, in honor of the venerated memory of Dr. Doremus, desire by this minute, to record their grateful recognition of his eminent services to this Institution, as well as to Science and Humanity at large.

J. ROGERS MAXWELL,  
*President.*

MAXWELL LESTER,  
*Secretary.*

At a meeting of the Board of Regents of The Long Island College Hospital, held April 10, 1906, the following minute was adopted:

CHARLES LOUIS FINCKE, A.B., M.D., died on March 19, 1906, from blood poisoning, the result of an operation performed by him in the service of The Long Island College Hospital.

He was graduated from this institution in 1899, being valedictorian of his class. He has been an attending physician in the Dispensary from 1900 to 1906; Assistant Pathologist to the Hospital from 1901 to 1906; Assistant to the Chair of Pathology and Bacteriology from 1901 to 1903, and Instructor in the Principles of Medicine from 1903 to 1906, in the College. He has also been Assistant to the Department of Histology and Pathology in the Hoagland Laboratory from 1899 to 1906.

Dr. Fincke's record in the several departments shows faithfulness, thoroughness and ability in the discharge of his duties, and his brief professional career was an assurance that, in his maturity, he would have achieved marked distinction as a physician.



The community has lost a useful citizen, his profession a valued member, and his Alma Mater a worthy son.

The Board of Regents desire, by this minute, to express their high opinion of Dr. Fincke's character, their grateful appreciation of his services to The Long Island College Hospital, and their sincere sympathy with his family.

MAXWELL LESTER, J. ROGERS MAXWELL,  
Secretary. President.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Peter Scott has removed to 126 New York Avenue.

Dr. Lewis P. Addoms has removed to 278 Halsey Street.

Dr. Robert F. Bliss has removed to 23 Seventh Avenue.

Dr. John H. Long has removed to 1138 Bergen Street.

Dr. John C. Merchant has removed to 99 Division Avenue.

Dr. William Pfeiffer has removed to 313 Stuyvesant Avenue.

Dr. Archibald D. Smith has removed to 87 Halsey Street.

Dr. A. Spingarn has removed to 623 Wiloughby Avenue.

Dr. Emory M. Wadsworth has removed to 1270 Pacific Street.

Dr. Fredk. H. Wilson has removed to 400 Manhattan Avenue, New York City.

Dr. Frank Bethel Cross has removed to 141 Seventh Avenue.

Dr. James P. Warbasse has removed to 386 Washington Avenue.

Dr. Lewis S. Pilcher announces the following office consultation and hospital clinic hours, May 1 to October 31: Office, Mondays, Tuesdays and Fridays, 2 to 3:30; Seney Hospital, Mondays and Fridays, 10 to 1; German Hospital, Tuesdays and Saturdays, 10 to 1.

Dr. Russell S. Fowler announces the following change of consultation hours: Mondays, Wed-

nesdays and Fridays, 1 to 4 P. M.; Tuesday and Friday evenings, 7 to 8.

Dr. L. A. W. Alleman has received the following telegraphic announcement of the receipt of the Kings County Physicians' Relief Fund: "Money received and paid Emmet Risford, Treasurer County Society. P. M. Jones, Oakland, California."

The Memorial Tablet to Dr. George R. Fowler was unveiled at the Library Building of the Kings County Medical Society, Sunday evening, May 27, 1906.

The New York Academy of Medicine held a Memorial Meeting for the late Dr. George R. Fowler at the Academy on May 3, 1906. The address was delivered by Dr. Algenon T. Bristol of this city.

## BOOK REVIEWS.

NASAL SINUS SURGERY, WITH OPERATIONS ON NOSE AND THROAT. By Beaman Douglas, M.D. Phil., F. A. Davis Co., 1906. 264 pp. Illustrated 8vo. Price: Cloth, \$2.50, net.

Dr. Douglas' book is a fairly complete catalogue of operations on the nose and throat, including the older as well as the recent methods. One greatly misses the entire absence of symptomatology and differential diagnosis, by the aid of which the reader should be able to conceive a preference for this or that operation in similar but varying cases. Some of the operations described differ but slightly from one another. In slightly varying pathological conditions, as in varying degrees of deviation and deformity of the nasal septum, it is frequently of moment to decide upon the best method of operating in the given case. With the experience of another to guide the problem might be more easily solved. We regret that no attempt to meet this need has been made. Some of the photographs of crude dissections are unnecessarily unsightly, and contrast badly with a few of Zuckerkandl's drawings here and there inserted.

TRIP TO THE "LAND OF THE MIDNIGHT SUN." Summer of 1905. By Dr. Flavel B. Tiffany. Kansas City, Hudson Press, 1905. Col. front., 87 pp., 8vo.

In the enthusiastic enjoyment of a well-earned vacation, Dr. Tiffany has written entertainingly, and has culled discriminatingly from his diary the personal and intimate happenings of his trip from Kansas City to Boston, thence to Liverpool, Hull, Christiansand and the North Cape.

SURGICAL DIAGNOSIS. A Manual for Students and Practitioners. By Albert A. Berg, M.D. N. Y. and Phila., Lea Brothers & Co., 1905. xvi, 543 pp., 21 pl. 8vo. Price: Cloth, \$3.25, net.

In the making of many books we note that during the past few years more attention has been given to the subject of diagnosis of surgical diseases than at any other period. Within the last year two new works have appeared. This does not indicate that diagnosis is assuming a new importance, but that the time is ripe for formulating the vast amount of clinical data which the surgeon has accumulated during a period of unusual surgical activity.

To diagnose surgical affections in their incipency is the keynote to surgical efficiency.

Early surgery is efficient surgery.

Late surgery is often too late.

The author has endeavored to put into compact form the rules and rationale of surgical diagnosis. The subject is treated concisely and developed upon modern

lines, making altogether an interesting and helpful treatise.

We do not believe that the author's idea of "McBurney's Point" coincides with that of its originator. It is not the *mid-point* but the junction of the outer and middle one-third of a line drawn from the superior iliac spine to the umbilicus. The use of such words as *foudroyant* instead of *fulminating* adds nothing to the lucidity or scholarship of the work.

There are few criticisms to make. There is much to commend. The work is replete with valuable suggestions and the wonder is that so much has been crowded into a limited space.

WILLIAM FRANCIS CAMPBELL.

THE INFLUENCE OF THE MENSTRUAL FUNCTION ON CERTAIN DISEASES OF THE SKIN. By L. Duncan Bulkley, A.M., M.D. N. Y., Rebman Co., 1906. x, 108 pp. 8vo. Price: Cloth, \$1.00.

ON THE RELATIONS OF DISEASES OF THE SKIN TO INTERNAL DISORDERS: With Observations on Diet, Hygiene and General Therapeutics. By L. Duncan Bulkley, A.M., M.D. N.Y., Rebman Co., 1906. xv, 175 pp. 12mo. Price: Cloth \$1.50.

The author of the little volumes noted above is to be complimented, it seems to us, for their production; we are entirely in agreement with him in his arguments and conclusions, and, as he knows, have been so for many years—our dermatological lives, in fact.

As regards No. 1, that on "The Influence of the Menstrual Function on Certain Diseases of the Skin," notably in acne and rosacea, we are in accord, though it is possible he may have exaggerated their importance. We think the medical man would be a poor observer who has not noted the effects on some forms of skin disease, sometimes when to all appearance the menstrual function has been physiological, and so frequently when morbid; and do believe that the dermatologist who does not take these phenomena into consideration in his treatment will not be so successful in his aims.

As to volume No. 2,—that embodying his series of lectures "On the Relations of Diseases of the Skin to Internal Disorders"—we here again decidedly agree with his arguments and conclusions, and as aforesaid, were contemporaneous with him, in urging the reasons given. We believe the dermatological literature of the present day, as compared with that of two or three decades previous, will show the trend of expert opinion in this direction. There was for many years a very definite opposition (is yet, in some directions) as to connection of the internal economy in relation to skin affections; but the treatises of the present day, as a rule, take a much broader, we think, more intelligent view. We can recommend the perusal of both these little books.

S. S.

THE MODERN MATERIA MEDICA. The Source, Chemical and Physical Properties, Therapeutic Action, Dosage, Antidotes and Incompatibles of all Additions to the Newer Materia Medica that are likely to be Called for on Prescriptions. N. Y., The Druggists' Circular, 1906. 306 pp. 12mo. Price: Cloth, \$1.50.

The title of this book correctly indicates its contents. It is a valuable and useful addition to every physician's working library.

FOOD AND DIET IN HEALTH AND DISEASE. By Robert F. Williams, M.A., M.D. Phil. and N. Y., Lea Brothers & Co., 1906. x, 392 pp. 12mo. Price: Cloth, \$2.00, net.

This is a very satisfactory little book on dietetics. It contains a wise selection of the more important facts relating to that large but imperfectly developed branch of medical science, which are presented in a clear and interesting manner. The properties of the different foods used in health are described in the first half of the book, and the particular dietetic indications offered by the various diseases and morbid conditions are discussed in the second. Especially interesting and useful to the general practitioner will be found the chapters on infant feeding and on hospital dietaries and recipes.

E. E. C.

A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS, OR THE ACTION OF DRUGS IN HEALTH AND DISEASE. By Arthur R. Cushny, M.A., M.D., Aberd. *Fourth Edition, Thoroughly Revised.* Phil. and N. Y., Lea Brothers & Co., 1906. 752 pp. 8vo. Price: Cloth, \$3.75, net.

The physiological action of most of the more important drugs in the pharmacopœia are described in this book in a clear and scholarly manner, and the work is one which all students of medical science will find most instructive. If any criticism need be made on it, we would say that it lacked somewhat in perspective. Drugs of major importance are not always set forth with the prominence that their relative value would suggest. For instance, *strophanthus*, which is a drug of the first magnitude, receives only a few lines of formal notice, and its distinctive physiological action, except for one slight allusion, is ignored, being assumed to be the same as that of *digitalis*; while to a discussion of the physiological action and uses of the *antifebrin* and *antipyrin* group of drugs, which are of exceedingly small value in medicine, is given an elaborate discussion covering fifteen pages. We are pleased to note that the author does not believe the *sparteine* myth, but very properly dismisses from serious consideration the bogus claims of that worthless drug to be placed among the reliable heart stimulants. The therapeutic classification at the end of the book is brief and condensed, and perhaps more satisfactory than most similar classifications.

E. E. C.

MATERIA MEDICA, PHARMACY AND THERAPEUTICS: Including the Physiological Action of Drugs, the Special Therapeutics of Disease, Official and Practical Pharmacy, Minute Directions for Prescription Writing and Avoiding Incompatibility, also the Antidotal and Antagonistic Treatment of Poisoning. By Sam'l O. L. Potter, A.M., M.D., M.R.C.P., Lond. *Tenth Edition, Revised and in Greater Part Rewritten.* Phil., P. Blakiston's Son & Co., 1906. xii, 914 pp. 8vo. Price: Cloth, \$5.00, net.

Potter's *Materia Medica and Therapeutics* is a standard work, and is too well known to require comment. It is so comprehensive as to include an account of practically every remedy of acknowledged value, while it is not too large for convenient handling. This, the tenth edition, has been corrected so as to conform to the changes in the recently revised U. S. Pharmacopœia.

A MANUAL OF MATERIA MEDICA AND PHARMACOLOGY. Comprising all Organic and Inorganic Drugs which are or have been Official in the United States Pharmacopœia, together with Important Allied Species and Useful Synthetics, Especially Designed for Students of Pharmacy and Medicine, as well as for Druggists, Pharmacists and Physicians. By David M. R. Culbreth, Ph.G., M.D. *Fourth Edition, Enlarged and Thoroughly Revised.* Phil. and N. Y., Lea Brothers & Co., 1906. 976 pp. 8vo. Price: Cloth, \$4.75, net.

This is a new edition of an excellent text-book on *materia medica* and pharmacology. It is remarkably comprehensive in its presentation of its large subject, while its arrangement is rational and clear. The section on the use of the microscope in *materia medica* will be found of practical value for druggists. It is copiously illustrated.

THE EXAMINATION OF THE FUNCTION OF THE INTESTINES BY MEANS OF THE TEST-DIET: Its Application in Medical Practice and Its Diagnostic and Therapeutic Value. By Prof. Dr. Adolf Schmidt. Authorized translation from the latest German edition by Charles D. Aaron, M.D. Phila., F. A. Davis Co., 1906. Col. front., v, 91 pp. 8vo. Price: Cloth, \$1.00, net.

Dr. Schmidt has done a favor to the whole medical profession in publishing this brief account of his methods of diagnostic examination of stools after a test meal. His tests are so simple and easily applied that they can be used freely by the general practitioner. This is certainly a most useful and timely book, and ought to have a wide sale.

E. E. C.



# BROOKLYN MEDICAL JOURNAL

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No. 7

## ORIGINAL ARTICLES.

### HONORS THAT HAVE COME TO THE MEDICAL PROFESSION IN AMERICA.

BY WILLIAM SCHROEDER, M.D.,

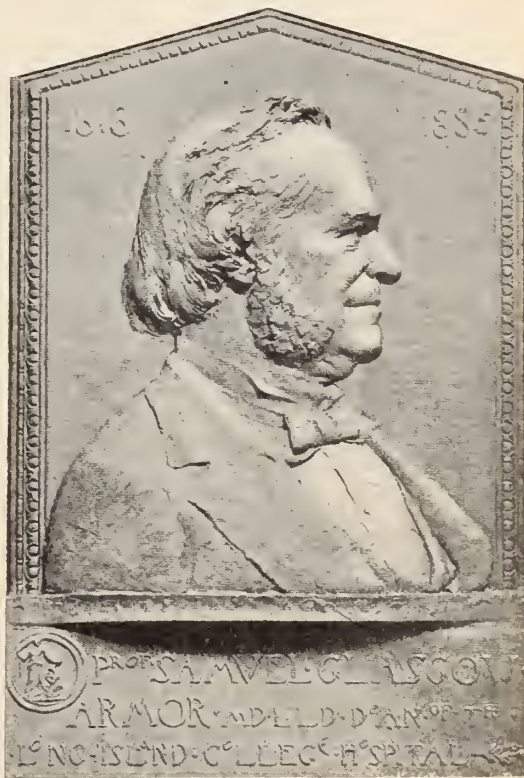
Chairman of the Historical Committee of the Medical Society  
County of Kings and the Brooklyn Medical Society, Member  
of the Historical Committee of the Associated Physi-  
cians of Long Island.

In presenting the memorial dedicated in memory of physicians of the City of Brooklyn it is with pride that we acknowledge the fact that physicians have lived during their professional life in this city, and received during that time the respect of their colleagues and the confidence of a large portion of the community. In testimony of this fact certain memorials have been placed or erected which will hand down to posterity the names of those who have been thus honored by their associates and friends. True, there are many physicians in every city who have labored long and faithfully for the benefit of suffering humanity, and the only memorial erected to their memory is enshrined in the hearts of those who have been benefited by their skill and attention.

Samuel Glasgow Armor, A.M., M.D., LL.D., born in Washington County, Pa., January 29, 1818, died in Brooklyn, N. Y., October 27, 1885, receiving the degree of A.M. from Franklyn College in 1840, that of M.D. from Kemper Medical College in 1844, and LL.D. from Franklyn College in 1872.

Professorships.—1847, Lecturer on Physiology, Rush Medical College. 1848, Professor of Pathology, Medical Department of Iowa University. 1851-53, Professor of Natural Sciences, Cleveland University. 1854-56, Professor of Practice of Medicine and Pathology, Medical College of Ohio. 1857-61, Professor of Pathology and Clinical Medicine, Missouri Medical College. 1861-66, Professor, Institute of Medicine, University of Michigan. 1866-68, Professor of Therapeutics and Materia Medica and Pathology, Long Island College Hospital. 1868-85, Professor of Practice of Medicine and Clinical Medicine, Long Island College Hospital.

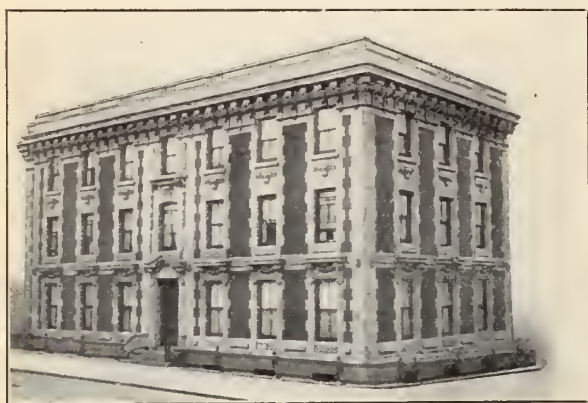
A memorial tablet in bronze with a medallion portrait, inscribed: "1818-1885. Prof. Samuel Glasgow Armor, M.D., LL.D., Dean of the Long Island College Hospital," was presented to the College by the Alumni Association at its annual meeting March 19, 1894. The sculptor was J. Massey Rhind, and is presented above.



SAMUEL G. ARMOR, A.M., M.D., LL.D.

William Henry Dudley, M.D.: We all admit that physicians are devoted to their work. It is the only way whereby success may be attained. But there are some striking examples of devotion to a given work which calls for special commendation. In this particular the late William H. Dudley, who for twenty-eight years of his professional life has given freely of his time and means for the benefit of the Long Island College Hospital, and it is with a feeling of just pride that we record the honors that have been accorded his memory. Being interested in clinical teaching he made pro-

vision in his will for a gold medal to be awarded to that member of the graduating class who presents the best clinical report of a case in the medical wards of the hospital. The late Henry W. Maxwell made provision for a gold medal to be known as the Dudley Memorial Medal, to be awarded to that member of the graduating class who presents the best clinical report of a case in the surgical wards of the hospital.



THE DUDLEY MEMORIAL

The Dudley Memorial erected by the estate of the late Henry W. Maxwell in memory of William H. Dudley, M.D., is designed as a home for the Training School for Nurses. It is situated on the corner of Henry and Amity Streets.

George Ryerson Fowler, M.D., born in the City of New York December 25, 1848, and died in the City of Albany, New York, on February 6, 1906. He graduated M.D. from Bellevue Hospital Medical College in 1871. He devoted his professional life to surgery and his labors in this connection have been so well presented in the medical press generally that it would be unnecessary to refer to them at this time. On Sunday evening, May 27, 1906, a bronze tablet was unveiled in memory of George R. Fowler

in the building of the Medical Society County of Kings. In the center is a profile of Dr. G. R. Fowler, on each side the following inscription:

George Ryerson Fowler, M.D.  
1848-1906.

President of the Medical Society County of Kings, 1886. Trustee, 1901-1905.

Surgeon. Citizen. Patriot. Teacher.

A servant of mankind. The friend of the suffering. A brother among brethren. Wise in council. Sagacious in debate. Courageous in the hour of danger. Undaunted in the face of death. His life an inspiration to the young, a challenge to his peers, an example to all.

A bronze memorial tablet has also been placed in the building of the Medical Society County of Kings bearing the following inscription: "Rev. Robert Brinckerhoff Fairbairn, D.D., LL.D. For thirty-five years warden of St. Stephen's College, Annandale, N. Y. Theologian, Educator and Author of international distinction.

In loving memory of Isaac Henry Barber, M.D., born August 18, 1829; died February 5, 1896. Vice-President and Trustee of the Medical Society County of Kings. A skilled and beloved physician, a faithful friend, a philanthropic citizen. Surgeon for many years in the Kings County Hospital.

"Placed by their sons in grateful memory and as a token of esteem for the professional, scholarly and manly example their lives portrayed."

Cornelius Nevins Hoagland, M.D.: The Hoagland Laboratory, corner of Henry and Pacific Streets, opened to the medical profession on October 1, 1888. The first laboratory in America founded by private means for bacteriological, histological and pathological research.

A bronze tablet has been placed on the outside of the laboratory, bearing a profile of the doctor and the following inscription:



MEMORIAL TABLET OF DR. FOWLER IN LIBRARY OF KINGS COUNTY MEDICAL SOCIETY



"Founder of the Hoagland Laboratory in 1897, the first laboratory in the United States erected, equipped and endowed by private means for the sole purpose of bacteriological research. His benefactions and noble charities have raised for him a monument more enduring than bronze.

"Born November 23, 1828. Cornelius Nevins Hoagland, M.D. Died April 24, 1898.

J. S. Hartley, Sculptor, 1899."

William Henry Haynes, M.D., born November 17, 1856, New York City; died November

geons, New York, in 1877. From 1881 to 1905 he held the position of visiting physician to the Home for Consumptives.

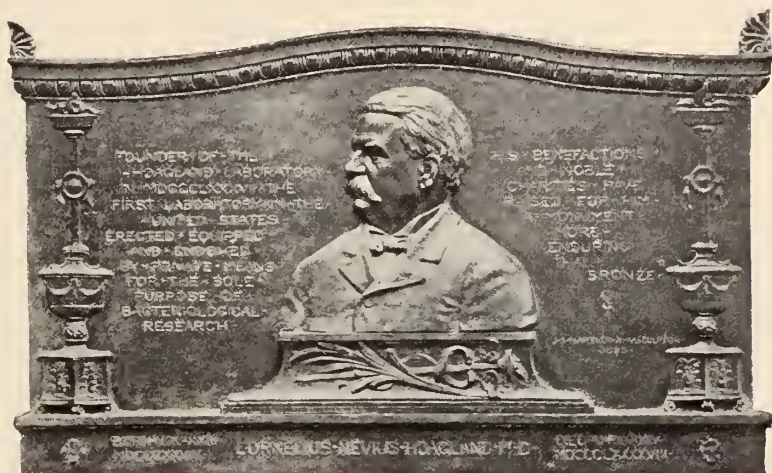
That institution has placed upon its wall a brass tablet, with the following inscription:

This tablet is placed in the Brooklyn Home for Consumptives, by the Board of Managers.

In recognition of the services of

Edwin Reynolds, M.D.,

Who gave to this Home personal medical supervision from the date of organization, July, 1881, to the day of his death, December, 1905.



MEMORIAL TABLET OF CORNELIUS NEVINS HOAGLAND, M. D.

15, 1902, Brooklyn, N. Y. Graduated M.D. from the University City of New York in 1876. President of the Brooklyn Medical Society in 1902, and the Brooklyn Society for Neurology in 1901-02. The last named society erected in the building of the Medical Society County of Kings a drinking fountain, inscribed:

"In memory of Dr. W. H. Haynes, 1902."

Charles Jewett, A.M., M.D., Sc.D., born September 27, 1842, at Bath, Maine, receiving the degrees of A.B. in 1864, A.M. in 1867, and Sc.D. in 1894, from Bowdoin College, and M.D. from the College of Physicians and Surgeons, New York, in 1871. In 1880 he received the appointment of Professor of Obstetrics, and in 1899 that of Gynecology, in the Long Island College Hospital, which positions he still occupies. The Bushwick Hospital, in organizing its school for nurses, gave it the name of Jewett Training School for Nurses.

Edwin Reynolds, M.D., born in Warwick, N. Y., in 1846, and died in Brooklyn, N. Y., December 15, 1905, receiving the degree of M.D. from the College of Physicians and Sur-

Alexander Johnston Chalmers Skene, M.D., LL.D., born in Aberdeen, Scotland, June 17, 1838, and died at Highmount, N. Y., July 4, 1900. He received the degree of M.D. from the Long Island College Hospital in 1863, and LL.D. from the University of Aberdeen in 1897. Professor of Obstetrics, 1870-72, and Gynecology from 1872 to 1899, in the Long Island College Hospital, of which institution



SKENE MEMORIAL LIBRARY

he was president from 1893 to 1899. Professor of Gynecology, New York Post-Graduate Medical School, 1883-86.

In memory of Dr. Alex. J. C. Skene, library at Griffin's Corners, N. Y. Building erected by Andrew Carnegie, 1901. Peabody Brothers subscribed \$50,000 to establish a room, to be known as the Skene Memorial Operating Amphitheatre, in the Long Island College Hospital, 1901. Skene Memorial Library Fund, to assist in completing the stack-room of the Medical Society County of Kings. Amount, \$480; year, 1902. Bed endowed in the President Street Sanitarium by Mrs. Henry K. Sheldon in 1902. Amount, \$1,000. Memorial window to Dr. A. J. C. Skene, St. Paul's P. E. Church, Flatbush, March, 1902, inscribed, "To the glory of God and in loving memory of Alex. J. C. Skene, M.D., LL.D."



MONUMENT OF DR. SKENE, FACING PROSPECT PARK

Tablet in memory of Dr. Skene, building of the Medical Society County of Kings, having the following inscription:

In memory of Alexander Johnston Chalmers Skene, M.D., LL.D.  
President of the Long Island College Hospital,  
1893-1899.  
President of the Medical Society County of Kings, 1874-1876.

Memorial to Alex. J. C. Skene, M.D., LL.D. Amount, \$5,000. To the Library of the Medical Society County of Kings; 1904.

Monument erected in memory of Alex. J. C. Skene in Prospect Park Circle, Brooklyn, N. Y. Consists of a broad shaft of white marble, resting upon a marble platform consisting of two steps, a marble pedestal in front, on the top of which rests a bronze bust of the doctor. The sculptor being J. Massey Rhind, and the architects M. L. and H. G. Emery.

The monument was unveiled on Saturday, May 5, 1906, the addresses being delivered by Hugo Hirsh, President of the Skene Memorial Association, and A. Jacobi, M.D., LL.D. On the slab on either side of the bust is the following inscription:

Alexander J. C. Skene, M.D., LL.D., Physician, Author. President-Dean and Gynecologist of the Long Island College Hospital.

Fyvie, Aberdeenshire, Scotland, 1838.

Highmount, Ulster County, N. Y., 1900.

#### A COMPARATIVE STUDY OF TYPES OF MENTAL DISEASE FOR THE GENERAL PRACTITIONER.\*

BY OLIVER M. DEWING, M.D.,

Superintendent of the Long Island State Hospital.

In the dark ages of medicine a person whose mind was disordered was simply a "lunatic"—nothing more, nothing less. That was all the classification that was attempted. In regard to etiology and causation, the great authorities differed. The popular belief, following the theological tendency then prevalent to attribute everything not understood to a superhuman cause, was that a lunatic was possessed of a devil, which must be exorcised or expelled by heroic measures, generally taking the form of a sound whipping for the patient. This was supposed to make things warm for the diabolical guest, and if sufficiently severe, he was expected to vacate the premises. Unfortunately, when this treatment was sufficiently radical to be effective, the patient died—this being an early instance of the phenomenon since noted, of the remedy being worse than the disease.

Medical theories in regard to the causation of lunacy differed, some holding more or less rational theories as to the action of the liver and excess of black bile—hence the terms of "melancholia" and "hypochondria," and others

\*Read at a meeting of the Brooklyn Medical Association, May 9, 1906.



holding that the changes of the moon were of determining importance, hence the terms "lunacy" and "lunatic."

During the last century, when medicine had entered on a somewhat more scientific phase, many attempts were made to classify mental disease in accordance with the causation, with the pathological conditions and with the clinical types, and especially in the latter part of the century, some of these classifications became exceedingly elaborate. Some of them attempted to classify all mental disease in accordance with an arbitrary division of the mind into "faculties," making use of the pseudo science of phrenology for this purpose. Others divided the mind absolutely into intellect, emotion and will, and classified all mental diseases according as they seemed especially to affect one of these departments of mental activity.

At the present time the trend is toward a practical grouping, with reference to causation, pathology, clinical symptoms and prognosis. For instance, we find it convenient to group together the insanities caused by extraneous toxic agents, sub-grouping the very large class caused by alcohol; but in general paresis the grouping is based on the definite pathology, though with the assumption now almost certain of a definite causation also. But a very large number of mental conditions, whose causation and pathology are in doubt, are simply grouped as clinical types, but it is interesting and in the highest degree important to find that we can found a prediction as to prognosis on the grouping of these cases about whose pathology and causation we are unable to speak in definite terms. I shall illustrate and endeavor to make my meaning more clear later in this paper.

Now the question arises, what can I say about the grouping of mental disease, its causation, prognosis and treatment, which will be of value to the general practitioner? This is such a very large subject that I shall start by saying that I do not intend in any way, even in the most superficial manner, to cover the subject. I shall not refer to many of the groups to which we daily refer cases of mental disease. I shall simply attempt to present some observations which seem likely to be of especial service, on account of the frequency with which these types of disease are met, and the desirability of being able to make rough distinctions between them.

With regard to general paralysis I will simply say that the classical mental symptoms of delusions of wealth and grandeur, and a feeling of

well-being, are frequently lacking. This is especially the case in women; but, where without any such mental symptoms a change of character with memory defects has taken place in an adult between thirty and fifty years of age, and you are able to find contracted or unequal pupils, or pupils not reacting to light, with muscular tremors or exaggerated or abolished knee jerks, the case is very suspicious and warrants careful examination for the Romberg symptom, examination with test phrases, and a search for the other symptoms of this condition. Within the past five or six years the lumbar puncture and examination of the spinal fluid for lymphocytes has taken its place as one of the most valuable single methods in establishing a diagnosis of general paralysis. If in the first examination of the spinal fluid lymphocytes are not found in a suspected case, a second examination should be made after the lapse of a week, and the presence of four or more lymphocytes to a field makes the presence of para syphilitic disease exceedingly probable. This is an exceedingly valuable method in distinguishing between true paresis, which I assume to be a para syphilitic condition, and what is known as "pseudo paresis," caused by alcohol, where the usual mental and physical symptoms of paresis may be present, but which will clear up in a few weeks or months.

Without references to those alcoholic cases which are familiar to the general practitioner, as "delirium tremens," we find that in a large number of cases of mental disease which are committed to the State hospitals, alcohol is an important element in causation, but it has been observed in many of these cases where alcohol plays a part, that the heredity is bad and the original mental constitution of the patient is not strong, so that an amount of alcoholic excess which would produce no mental disturbance in a normal person, precipitates mental trouble. There is a group of these cases so frequently met with as to be worthy of special mention. In this group we regularly find mental depression, with hallucinations of sight and hearing, and frequently delusions of persecution. These patients are not delirious, they know where they are, they understand questions and give relevant answers. Their delusions are usually of a painful character. They may believe they are being followed by detectives. Attempts have been made to poison them, and there are frequently delusions of jealousy directed toward a husband or wife. The somatic signs of chronic alcoholism are present for a considerable length

of time. The prognosis in these cases is good, and most of them recover after several weeks or months. I will refer to treatment later, but I will say here that these cases should be restrained, as they may be dangerous to themselves and others.

The mental disorders of old age are an interesting and profitable study for they are based on fairly well understood pathological conditions which, while they cannot be entirely removed, can be so treated that the condition of the old person may be made much more comfortable, and he be less of a burden to himself and others. The mental disorders of old age arise, as a rule, on the basis of arterial change and insufficient elimination of waste products. I shall not attempt to give an elaborate clinical picture of these disorders, as they vary so widely in clinical type, but there is, of course, failure of memory for recent events; there is frequently a change of disposition, often with depression; there is apt to be great irritability and there are frequently hallucinations of memory which lead to absurd imaginary recollections. Sometimes delusions in regard to poisoning and the loss of the property are present. It is frequently the case that an old person will, as the family say, "lose himself," for longer or shorter periods, while at other times he may be perfectly rational. There is great restlessness, and a tendency to wander about and get lost, and all these cases suffer greatly from lack of sufficient sleep. Another type may be apathetic, docile, and obedient, with a tendency toward somnolence. The tendency of most senile cases is to lose control of the bladder and rectum, and become very filthy. Treatment will be referred to later.

I will now refer to several groups of mental disease which, on account of their over-lapping and the large number of intermediate cases, can best be understood when placed in comparison with each other. These groups are the following:

Dementia præcox.

Mania depressive insanity.

The infection and exhaustion psychoses.

Involution melancholia.

Dementia præcox, or precocious dementia, or simple dementia is preeminently the mental disorder of early life—whence its name—but it should be understood that it frequently makes its appearance after thirty, and, now and then, up to forty years of age. Consequently, its name is, in some degree, a misnomer. It is probable,

however, that in many of these cases of apparently late onset, deterioration really began early, but was not noticed, or, there has been a slight earlier attack, from which there has been an apparent recovery and which has been forgotten. Its chief and determining characteristic is a tendency toward deterioration or dementia, and in that it differs from the other groups hereafter to be considered.

For the point of greatest importance in connection with the manic depressive group is complete recoverability, though with the probability of relapse; and the infection and exhaustion psychoses have the best prognosis of all, with no special tendency to relapse—not as much can be said of involution melancholia, from which less than half recover.

Dementia præcox includes most of those cases formerly classed as "primary dementia" in young persons. Also, most of those cases formerly classed as mania and melancholia, which become demented and form so large a portion of the terminal dementis in our hospitals. It also includes many cases formerly classed as paranoia, where there are many hallucinations of hearing and ill-defined, absurd, changeable and not well-systematized delusions. For convenience, we subdivide our cases of dementia præcox into hebephrenic and katatonic cases and cases of paranoid dementia. Most of the cases occurring before twenty years of age are of hebephrenic form. Many of these young people which we class as hebephrenic, have been peculiar in childhood, some of them abnormally seclusive, others irritable, obstinate and difficult to manage. Their efficiency is apt to be under the average, but, now and then, a particularly bright scholar will go down under the strain of overwork at school, anxiety in regard to family troubles, or as a result of the ripening of sexual instinct or some other severe strain, and begin to show the characteristic signs of deterioration. There is a change of character, and the youth becomes indifferent and distracted, and frequently seclusive. He is guilty of absurd conduct and has fits of irritability when he will behave very badly and perhaps assault members of the family, or smash the furniture. He will begin to express silly and absurd ideas, and perhaps claim that he is a great inventor, or he may have some absurd delusions of persecution. He is unable to continue whatever work or employment or study he may have been engaged in, and it become obvious to all that a serious change has taken place.



Although there is apparently a certain amount of depression in many of these cases, it will be found that this depression is not of a deep character, but on the contrary is superficial and may be accompanied by silly and absurd talk and conduct, which makes the superficiality of the emotional state apparent. In fact the keynote of the condition is the lack of any deep emotion under circumstances where it would normally be called forth. A silly smile and laugh are frequent characteristics of this superficial emotional state. Hallucinations of hearing are frequently expressed. The patient hears people, strangers, talking about him on the street, and, if a young woman, she may imagine that she hears voices speaking in a derogatory way in regard to her character. Mannerisms in the patient's conduct and language are very frequent, and characteristic, also stereotyped tricks of facial expression. These cases frequently show negativistic tendencies, and when this is the case any attempt to obtain compliance with what is regarded to be for their welfare is met with an impulse toward an opposite course. With all this, the memory is usually good, and the patient is oriented as to time and place, and may surprise one with his accurate understanding of what is going on.

In the katatonic forms these conditions are present but many of them in an accentuated form. In addition, there may be deep stupor, with a cataleptic condition, in which there may be a high degree of suggestibility—the patient assuming and maintaining the most grotesque attitudes, upon their being suggested by another person; or, there may, on the contrary be, the highest degree of negativism, in which every attempt to feed, clothe or bathe the patient is met by the most stubborn resistance; or, there may be excitement, with violent conduct, the result of impulse, from which there is absolutely no attempt at control. These conditions of excitement and stupor frequently alternate without any apparent external determining cause.

The paranoid type of dementia præcox shows many of the symptoms of deterioration which have been described under the hebephrenic form, but these patients are apt to be somewhat older, between twenty and thirty years as a rule, and sometimes over thirty years of age. In addition they will exhibit delusions which are more or less systematized, accompanied by many hallucinations, especially of hearing. As opposed to the classical type of delusions found in paranoia, these delusions frequently change, and are apt to be of an absurd character.

The prognosis of all forms of dementia præcox is bad. There are very few absolute recoveries. There are frequently remissions, which last for a longer or shorter period, and a considerable number of cases pass into a partially crippled state, in which they may be made somewhat useful in a hospital, but are unable to earn a living outside. Many others become completely demented, and form a large part of the chronic class in our hospitals. Statistics are apt to be misleading on account of the personal factor and the tendency of some to include as many cases as possible under favorite groups, but it is probable that twenty per cent. of all cases of mental disease received in our State hospitals are really cases of dementia præcox. It is, therefore, the most common form of mental disease.

The manic depressive group includes cases of excitement and depression, with certain definite characteristics. These states of excitement and depression frequently alternate, either during the same attack, or there will be an attack of excitement which entirely clears up, followed after a longer or shorter period, months or years, by depression, or vice versa. This group takes in the cases formerly classed as "circular insanity" and many of the recoverable cases formerly classed as "mania" and "melancholia."

The manic cases are usually introduced by a short period of depression, which is very apt to be the symptom first coming to the attention of the general practitioner. This speedily gives way to the manic condition with flight of ideas, accompanied sometimes by distractibility, and always by motor excitement. The flight of ideas consist of a string of concepts, the patient never following the logical development of ideas, but passing from one concept to another, as the result of verbal resemblances. Where this constant switching off from the main line is the result of external impressions, objects seen or words dropped by the examiner, we refer to it as "distractibility." Accompanying this tendency to be governed in the stream of thought by superficial verbal resemblances, there is apt to be much punning and play on words. There is a tendency to dramatic attitudes and declamation. There is a marked feeling of well being, frequently accompanied by erotic tendencies, but frequently considerable irritability is shown. There is constant motor excitement. Delusions, if present, are fleeting and changeable.

The depressed phase is characterized by difficulty of thinking, psycho-motor retardation, and hopeless depression. Questions have to be re-

peated many times before an answer can be obtained, as the result of this slowness and difficulty of thought. There is apparently an absolute lack of will, even to perform the most necessary acts. There may or may not be delusions, usually either persecutory or of sin and unworthiness, and possibly attempts at suicide. The appetite is reduced and the physical condition declines.

As noted before, recovery is the rule in the manic depressive group, and it is therefore of great importance to differentiate these cases from the katatonic cases of dementia præcox with excitement or stupor. In doing this, we must bear in mind especially the negativism of dementia præcox, which is an impulse toward contrariety, and differentiate it from the lack of will to do, the difficulty and slowness of thought of the manic depressive depression. We must also bear in mind the difference between the cataleptic states with stupor, and the psycho motor retardation and difficulty of willing and thinging which may produce the appearance of stupor in the genuine depression of manic depressive insanity. We must ever bear in mind that, comparatively speaking, the emotional reactions in dementia præcox are shallow, whereas in the contrasted condition they are genuine and real. We must distinguish between the flight of ideas and motor excitement, largely influenced by external impressions, with feeling of well being and elation, which we find in the manic case, and the katatonic excitement which is free from genuine emotion, uninfluenced by external impressions, and of a stereotyped character. The case of dementia præcox is suffering from a genuine deterioration. The manic case is not deteriorating, and is governed in his association of ideas very largely by superficial and verbal resemblances, and is frequently bright and witty.

As stated earlier in this paper, there are many transition cases which it may be difficult to group, and these cases we do not attempt to force into groups where they do not belong, but frankly regard and classify them as transition or allied cases.

Of the exhaustion psychoses I shall not have time to speak at length. They occur as the result of infectious diseases and exhaustion of the organism from any cause, as the result from any mental, moral or physical stress, as, for instance, the puerperal state, fevers, hemorrhages, inanition, mental or moral shock, grief, etc. In some cases it is obvious that the psychosis is the direct result of an infective agent; in others it is ap-

parently a psychosis directly the result of exhaustion or shock. However, the clinical features are the same. There is physical exhaustion, mental confusion and more or less obscuration of consciousness. In some cases there is an acute delirium, in others, stupor. In the mildest cases there is a simple mental confusion with bewilderment. Sometimes the manic forms of manic depressive insanity are complicated with an exhaustion delirium. We then have the syndrome known as acute delirious mania, which is almost invariably fatal.

The diagnosis of these infection and exhaustion psychoses is usually not difficult, owing to the obvious determining cause, and if this cause is not of too grave a character, and rational treatment is employed, the prognosis is uniformly good. The duration in the mildest cases of mental confusion may not be more than a few hours, or a few days, but in graver cases it may last for weeks or months. But in the very grave cases of acute delirious mania above referred to, the duration is short.

The cases of involution melancholia are found in women during the climacteric period, and in men in the fifth decade. It is regularly an anxious depression with delusions of sin and unworthiness, hyperchondriacal ideas and perhaps delusions of persecution. It may have been preceded for a long time by feelings of fatigue, headache, sleeplessness, vague fears, despondency and a sense of growing inadequacy. The patient is generally well oriented. In the severer cases there may be great agitation, with many absurd delusions and terrifying hallucinations. The tendency to suicide in this psychosis is very great, in fact greater than in any other form of mental disease, and the patient must be constantly watched, night and day. The prognosis is not very good; only about fifty per cent. of these cases recover.

A word as to the causation of these psychoses. It is probable that in most cases of all forms, the patient's mental and physical inheritance is in some way at fault. It may not be possible to find any bad heredity in the form of a definite mental disease from which some ancestor has suffered, and in a large proportion of cases you can find nothing of the sort, but, all the same, you may be sure that in most cases your patient is handicapped in his battle with adverse conditions, and under the impact of a particular strain, or the resultant of a combination of strains, your handicapped patient has gone down as a ninepin goes down before a ball. In some forms of



mental disease this is more obvious than in others, but I think it is a fair assumption to make in nearly all cases.

The treatment should be along hygienic lines, and with a view to removing, as far as possible, all disturbing causes and securing normal function. It may seem necessary to use sedative drugs, but if possible we should get along without them. Usually it will be found necessary to change the environment, and place the patient in an institution where, in addition to medical treatment, he may also be a part of a well-ordered and disciplined routine. Of course this is frequently necessary in order to protect the patient from self injury, as well as to protect others from him. Further than this, it is almost impossible to carry out some of the measures necessary in the treatment of many of these cases outside of a hospital for the insane, and the sooner an incipient case is placed under hospital care, the more likely will that case be to recover.

The two most important features in treatment relate to nutrition and the elimination of waste products. The same common sense principles apply in the feeding of these cases as in other serious physical ailments. There is no place here for fads in dietetics, but in every way we should seek to promote the patient's nutrition and obtain a steady gain in weight. In the most serious cases, where the physical condition is at a low ebb, it is necessary to depend on liquid diet, chiefly milk and raw eggs, and if the patient should persistently refuse to take nourishment, resort should be had to forcible feeding. This is best done by means of the nasal feeding tube, which is simply a rubber tube of the proper length, calibre and firmness to be inserted into the nose and passed down the pharynx and œsophagus to the stomach. It is simply necessary to pass the tube into the nose, after which it is gently pushed on, and without difficulty it will glide over the epiglottis and into the œsophagus. From a pint to a quart of milk, containing from two to four raw eggs, may be given at one time, twice a day.

When the patient will take food voluntarily, the problem is of course greatly simplified. As soon as his condition warrants it, solid food should be given, and this should contain a liberal amount of fat and proteids. This feeding should be pushed so long as the patient is able to assimilate what is taken. A good quality of genuine olive oil is found to be a pleasant and easily assimilated fat, in doses of from two to six drachms, three times a day.

Most acute cases, especially where there is a considerable amount of physical weakness, can best be treated in bed, and, on arrival at the Long Island State Hospital, such patients are regularly placed in bed and kept there until a study of their cases shows that they will be benefited by being up. Especially while the patient remains in bed, massage is beneficial.

When the treatment of such a case is undertaken, the condition of the mouth and alimentary canal is almost uniformly found to be very bad. Elimination of waste products has generally been entirely neglected, and a literal cleaning of the Augean stables is necessary. Two or three grains of calomel will best begin this beneficent work, followed by saline. Then should follow, as long as the patient is under active medical treatment, and especially as long as the feeding is being pushed, regular daily doses of cascara sagrada, sufficient to cause two loose movements of the bowels daily. While the patient is in a critical condition, and until the mouth is clean and elimination well established, the patient should receive a draught of water—plain  $H_2O$ —every hour. It goes without saying that this should be done without regard to whether the patient asks for water or not. All this may seem trite, and perhaps some of it unimportant; but, I assure you, it is of the highest importance, and unless it is attended to carefully, many perfectly recoverable cases will die. In the infection psychosis where the whole organism is clogged with effete matter, in exhaustion cases, where the heart action has become weak, and in cases of senile dementia, where the mechanism for elimination has become permanently crippled, further measures must be taken. The simplest and most effective method for stimulating the kidneys to relieve the system of the toxic agents that are threatening its existence, is a high injection of the hot normal saline solution. Either by means of the rectal tube or with an ordinary Davidson or fountain syringe, introduce as much of the normal saline solution at a temperature of about 105 degrees F. as can be retained, the patient having been placed in a position favorable for this procedure, and being assisted to retain it by means of a towel in the hands of a nurse. It is desirable that as much as possible be absorbed, and the remainder will wash out the bowel. It may be necessary to do this once or twice a day. In many cases, however, good effects from the normal saline solution may be obtained, giving it hot by the mouth, on an empty stomach, several glasses a day. In some of the most desperate of

the infection and exhaustion psychoses, the normal saline solution should be used by hypodermoclysis, and it will be found that from half a pint to a pint can slowly be introduced under the skin and into the areolar tissue by means of an aspiration needle, rubber tubing and a syringe, but it is better to employ an apparatus made for the purpose, by the instrument makers.

In senile dementia the main lines of treatment sketched above are correct, but on account of the failing eliminating apparatus, our attempts at pushing the assimilation of food must not be so strenuous. In addition, in senile cases, and in all cases, where the elimination of the urinary solids is below the normal, it is frequently useful to give a saline cathartic as often as may be necessary, to help out the action of the kidneys, and, in my experience, nothing is better for this purpose than Rochelle salts. This may seem trite, and such free and frequent catharsis may seem uncalled for and inadvisable, but I assure you that it is better than to allow your patient to continue to be poisoned by the products of metabolism which his kidneys can be made only partially to remove and which—not to speak of the more profound results of poisoning—cause nervous distress and sleeplessness, and an apparent necessity for sedative medication. And I wish to say that if you will make a careful study in each case of the problem of elimination, you will have much less occasion for sedative drugs in the treatment of your senile cases, and I now refer not merely to frank cases of insanity, but to your other senile cases, where nervous symptoms and lack of sleep are complained of.

Hydrotherapy is one of the most valuable hygienic measures at our command in the treatment of the insane, but as a rule it can only be employed in hospitals where special apparatus is available. The needle spray, under from twenty to thirty pounds pressure, followed by the spinal douche, is a most valuable measure in most cases where stimulation of metabolism and of the circulation is called for, but it must be carefully applied, the temperature of the water to be gradually reduced—the first treatment at 90 degrees, the second at 85 degrees, etc.—to 55 degrees or 60 degrees, and the time of application varying from 15 to 60 seconds including the spinal douche. The patient is then rubbed down, and rests for an hour or more.

Manic conditions, with great motor excitement, the impulsive excitement of the katatonic phase of dementia præcox and other conditions

of excitement are best treated by the hot or cold wet pack, lasting from half an hour, to an hour, or by the prolonged warm bath. This prolonged warm bath should not be attempted without the special apparatus necessary for keeping the water at the right temperature, which is from 99 degrees to 100 degrees. Attempts to use this method without suitable appliances, with the result that the water gets below 98 degrees or becomes hot, are responsible for many failures and for some criticism. The patients are kept as long as necessary in this warm bath, and it bids fair to be our best resource in the treatment of disturbed cases.

Of the use of state electricity or the high frequency currents, I will say that the value of these methods is problematical. Most hospital physicians are inclined to regard them as chiefly valuable for the mental effect on the patient.

When sedative medication is necessary, sulphonal and trional are the most commonly used and generally effective and satisfactory drugs.

Many cases, especially in convalescence, are benefited by tonic medication, but it is not necessary for me to enter into this line of treatment in detail.

In conclusion, I beg the kind consideration of those having a special knowledge of this subject, and to whom it is of course apparent that this paper is in no respect complete or exhaustive, and to this obvious criticism I will simply say that in order to consider the different subjects which have been here treated together, it was necessary to make my remarks in regard to each one of them very brief, and if I have succeeded in at all interesting you or giving you suggestions which you may find of value, I shall be satisfied.

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Dr. S. Yankauer has introduced a new material into the structure of sounds for the Eustachian tube (Laryngoscope, xvi, 1906, p. 351). It is composed of a strand of catgut covered by an elastic resinous coating which gives smoothness to the instrument but allows for boiling. Spaces are marked on them to indicate when they have passed the mouth of the catheter and the depth of introduction into the tube. The largest size is passed first, then the smaller until the stricture is passed. The sounds are thought by the author to be softer, smoother and more flexible than those in common use, and no irritation has been observed following their introduction.



## HEADACHE AS A SYMPTOM IN INTRANASAL DISEASE.

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Until recently it was impossible to recognize the deeper seated diseases due to involvement of the accessory sinuses of the nose and the significance of certain kinds of head pains was not duly appreciated. Since it is possible by improved methods and greater knowledge of what we see on examination, to diagnose with some accuracy the nature of intracranial and intranasal processes it is nevertheless difficult to make their true significance felt. While their effects are very evident and easy of apprehension as compared with a purely theoretical explanation, the power of recognizing deep seated diseases in the nasal cavities will have to become much more general than it is now, even among specialists, before we shall be able to show any large number of convincing successes.

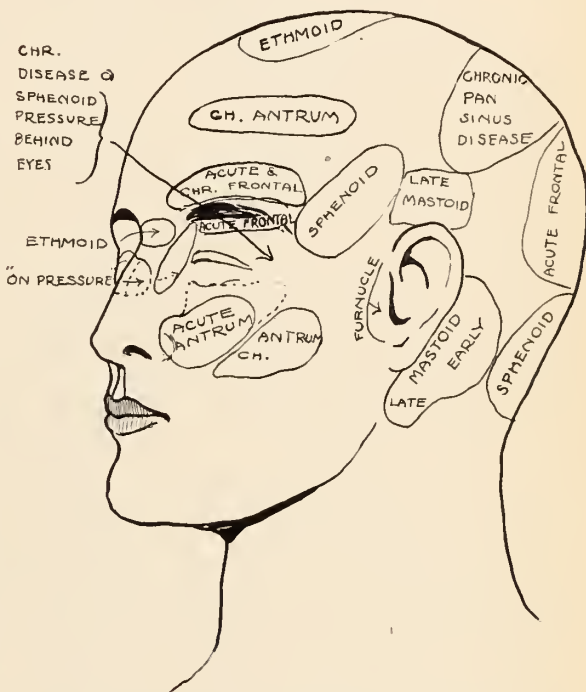
Headache cannot always be distinguished from so-called neuralgia. It is customary to limit the term headache to the region above the hair line, while pain about the face, below the hair line is called neuralgia. This is not always a good distinction. Tenderness on pressure of the affected nerves is the only real sign of true neuralgia.

There is no fixed relation between the localization of the seat of the pain and the seat of the disease. On the contrary, the pain is not generally felt at the seat of the disease and it may even be felt constantly on the opposite side. If on touching some spot on the mucous membrane with a probe it causes the same kind of pain that occurs spontaneously in the face or upper or back part of the head, one may be almost certain that this spot is the chief seat of the disease. Therefore palpation with a probe and very careful searching for pus foci offer the best means at our command in detecting the diseased region in the nose that is causing the headache. The pain is generally relieved during free discharge of pus from the nose proving thereby that it is the retention of the discharge that causes the pain.

Where swollen or hypertrophied parts are in contact the pain may be due to pressure but this is not always the case; Grünwald believes the pain arises directly in the inflamed mucous membrane, the nerve filaments being compressed between the mucosa and the rigid bony walls of the nasal cavity and the irritation spreading to the other nerve areas. This applies to cases of suppura-

tion in wide, roomy cavities as well as where there is pressure or contact. Pain occurs also from irritation of the erectile tissue. Finally we must not overlook the disturbance of circulation of blood and of lymph at the base of the skull.

Dizziness must be mentioned here; it is almost always the result of pain. I have seen this frequently and it is generally due to sphenoid sinus disease, rarely to ethmoid or frontal, but does occur where there is multiple sinus involvement including among others the sphenoid. Knowing this has been a help to me in treating a case more than once. Nervous symptoms, inability to concentrate the mind, insomnia, unrest, mental depression, weakened resistance to alcohol and tobacco, melancholia, any or all of these occur with nasal suppuration involving the ethmoid or sphenoid cavities, due in part to the close proximity of the suppurating process to the base



of the skull. The reabsorption of pus, the progressive suppuration and the frequent caries must not be forgotten as causes of trouble. Swallowing pus and efforts to dislodge dry crusts from the throat often cause stomach disturbances and vomiting.

When we consider the frequency with which influenza, scarlet fever and in fact all the infective diseases, cause mastoiditis, any pain of a neuralgic character following any of these diseases should be viewed with suspicion and when the cause of the pain is not easily made out, the sinuses should be thoroughly examined.

Primarily the frontal, the ethmoid or the antrum are most often involved; the sphenoid less frequently. All of them can be infected one from the other, by violent efforts to clear the nose and by washing pus from one discharging focus by nasal douching, into another sinus or into the ears as we all know and see so often.

In laboratory diagnosis the pneumococcus, the typhoid bacillus and the streptococcus have been most frequently found in the discharges examined; the same is true in autopsy findings, by microscopic examination of pus from these cavities.

So-called neuralgic pains occur in acute sinus invasion or in exacerbations of chronic cases as follows: Supraorbital and supradental pain in antrum cases, infraorbital pain and pain in back of the head in frontal cases, pain in top of the head and at root of the nose in ethmoid cases, pain at base of skull, center of the head and in the temporal regions in sphenoid cases. Where these pains are mixed there is probably involvement of two or more of the sinuses.

Pains due to ear disease are limited to the region of the ear affected except in cases which have invaded the brain when the pain becomes more diffuse.

In chronic sinus disease, diffuse headache occurs, with heavy feeling or constant pain in the center or back part of the head in chronic frontal and in chronic sphenoid disease but this is true because in chronic cases there is almost always more or less involvement of more than one sinus. The true ethmoid and antrum pains are more often absent in chronic cases, except in acute exacerbations, and then there is a constant characteristic recurrence of the pain at the same places that it occurred in the acute attack which the patient very often remembers then and tells of having had pain there before.

The examination of these cases requires technical skill and special instruments not often found in the general physician's armamentarium.

Given a case with pain in the head, free discharge of pus from the nose, temperature, general malaise, history of repeated cold in the head, sneezing for no accountable reason, loss of smell or taste or both, auto-perception of foul smell at times, sense of pressure behind eyes or in other parts of the face, disturbances of vision at times, frequently repeated furunculosis around the nose, and pain on pressure over frontal, antrum or top or sides of the nose, any and all of these show accessory sinus disease of one or more of the sinuses and demand treatment at once.

## REMARKS UPON THE CÆSAREAN OPERATION.

BY WILLIAM P. POOL, A.M., M.D.

No surgical procedure furnishes a more striking example of the developments and attainments of the surgeon's art than the Cæsarean operation. First undertaken at about the beginning of the Christian Era, it was long employed only after the death of a woman in the latter months of pregnancy, the Roman Law requiring, in such cases, that the child be delivered before the mother could be buried. It was regarded as an absolutely impossible operation upon the living, and many centuries passed before any obstetrician was bold enough to attempt it before his patient had died of prolonged and perhaps impossible labor. And in its earlier history the almost uniformly fatal results justified the fear with which it was regarded. Under such conditions the scope of the operation was necessarily limited, and it was held to be the last resort after all other measures had failed. Barnes so considered it, and in his earlier writings said: "Embryotomy stands first and must be adopted in every case when it can be carried out without injury to the mother. Cæsarean section comes last and must be resorted to in those cases where embryotomy is impractical, or cannot be carried out without injury to the mother. There is therefore no election. The law is defined and clear. Cæsarean section is the last refuge of stern necessity." But he considerably modified this view at a later time.

Its application was, and has been, up to recent times, chiefly in the delivery of children where through contraction or deformity of the pelvis, their passage through the birth canal even in a mutilated state was impossible. This formed the absolute and only indication for the operation. But the increasing safety of abdominal surgery under the improved technique of the present time has opened a larger field of usefulness for Cæsarean section, and it is now employed, not only, in pelvic contraction, but for rapid delivery in eclampsia, in placenta previa, when tumors obstruct the natural passage, and in malpositions which it is impossible or dangerous to reduce. There has existed a difference of opinion among the older obstetricians as to the relative indication in contraction for the performance of Cæsarean section. Scanzoni stated that the maximum obstetric conjugate which made it permissible, the child of course being alive, was three inches. Nagele and Spie-



gelberg advised it with a conjugate of two inches or under; and Barnes, Playfair and Leishman at  $1\frac{1}{2}$  inches, these latter preferring embryotomy, even upon a living child, to subjecting the mother to what they believed to be the great strain and shock of the abdominal operation. But in the accumulation of statistics upon this subject, and in the favorable reports that we have from the large clinics of Europe and this country, must be found reason for revising the formerly accepted ideas of Cæsarean section, and for modifying the restrictions placed upon it by the older masters.

Ohlshausen has recently reported a series of 118 operations performed in his clinic by himself and his assistants. Of these, 91 were for contraction, and of this number nine died. We unfortunately have no detailed knowledge of the condition of these fatal cases, but it is fair to assume that in 91 cases there must have been a number who had been injured or infected by previous attempts at delivery.

Davis has published a full and careful account of nineteen cases operated upon at the New York Lying In Hospital. Seventeen of these were for contracted pelvis with two deaths, and the fatal result in these two cases was directly traceable to traumatism and infection before they were presented at the hospital for operation. These results show that instead of being a formidable or even a doubtful operation, it is eminently safe and practical, and when performed under proper conditions should not have a higher mortality rate than any other clean laparotomy.

It has been particularly the child's operation, and has been done with the idea that an additional risk was being placed upon the mother in order that the child might be saved. But at this day it would seem that in many instances the mother as well as the child may benefit by its employment, where formerly it would not have been considered a wise or justifiable proceeding. It is not the cases of marked contraction that now raise the question of whether to operate or not, but those cases in which contraction is slight, or where for other reasons there is disproportion between head and pelvis.

It is impossible that any definite pelvic dimensions be stated as indicating or contraindicating the Cæsarean operation, because the size of the foetal head is a most uncertain quantity. By the manual and instrumental methods in common use it is possible to obtain a very exact knowledge of the pelvic capacity, but an equally exact

knowledge of the dimensions of the foetal head is a more difficult matter. Instruments devised by Perret and Farabeuf for internal cephalometry have in their hands proved to be very accurate, though results obtained with them by other observers have varied widely. Stone, using the ordinary pelvimeter, has estimated foetal dimensions with surprising exactness. But not everyone has the skill or experience of these investigators, and the average obstetrician without special training in this work may be far astray in his reckoning. Still it is within the power of everyone to compare the size of the head with the pelvis by forcing it down into the brim by bimanual manipulation. This is a particularly valuable method of observation when the patient can be examined at intervals during the last month of pregnancy, thus noticing the ease with which the head engages from time to time. The examiner should be careful to have the head well flexed and in a normal position, so that it may be engaged under the most favorable conditions. A small fraction of an inch may, in a doubtful case, make all the difference between the safe delivery of a living child, and a still born infant in a more or less mutilated condition, which leaves behind it severe injuries to the birth canal. The question is not whether it be possible by brute force to drag a foetus through the pelvis living or dead, and without regard to the damage which may be done to the mother, but what is, all things considered, the safest method of delivery for both mother and child.

When a head in a normal position persistently refuses to enter the brim, there are open to us three methods of procedure: high forceps, version, and Cæsarean section. (Symphysiotomy may still hold a place, but the tide of opinion is steadily against it.) Delivery by forceps is so commonly practiced by all classes of accoucheurs that it is possibly looked upon as of little account, and is often undertaken as a matter of course in tardy labors. Such usage is always dangerous and is particularly to be deplored when the head is stationary at the brim. The high forceps operation is in many cases one of the most difficult and delicate in obstetric surgery, and is often fraught with grave danger to mother and child, even in skillful hands. When slight disproportion exists fatal cerebral compression is not unlikely to occur from too long and severe pressure of instruments and pelvic walls upon the head. Shock and traumatism are frequently inevitable to the mother. Late version is also a

doubtful proceeding under such circumstances. A high retraction ring and thinned out lower uterine segment always present the possibility of rupture. Delivery of the after-coming head must be accomplished rapidly in order to save the child, and is certain to cause laceration of the uterine and pelvic tissues which it may be beyond the operator's power to limit or control. More than this, the endurance of the child which has already been greatly taxed by prolonged labor, and probably a previous application of forceps, is most likely to be unequal to the additional violence of this operation. It seems to the writer that it is a mistake to attempt version and breech delivery in any case where it is deemed unsafe to draw the head through the pelvic cavity with forceps. In such cases the Cæsarean has an advantage over the other operations in that it certainly saves the child and inflicts not more, and usually much less, injury upon the mother. At any rate the injury in one case is known and controlled, and in the other it is not.

The most favorable time to operate is in the first stage of labor while the membranes are still intact. Unruptured membranes are a guard against infection, and dilatation of the cervix favors drainage of the lochial discharge. But when there is doubt as to the indication there can be no serious harm in rupturing the membranes at the end of the first stage and carefully applying axis traction forceps, providing this be done with all cleanly precaution. The operator may thus assure himself of the practicability or impracticability of delivering *per vias naturales*, and it does not appear that the danger of infection is greater under such treatment if Cæsarean section be subsequently resorted to, than it would be in any difficult high forceps delivery.

To illustrate the value of the operation in cases of slight disparity between head and pelvis, I wish to mention, not a list of successful Cæsarean sections, which would prove nothing, but a few cases which show the difficulties and dangers encountered in such a condition when other methods are employed.

Case 1. Primipara. Aet. 27. Had been in labor 12 hours when admitted to the hospital. Cervix fully dilated, membranes ruptured. Two attempts had been made to deliver with forceps, and the vagina was badly lacerated. The true conjugate was estimated at four inches, and other pelvic measurements were in proportion. Because of the patient's bad general condition, the laceration of the passages, and the almost certain infection, abdominal operation

was not deemed advisable at this time, although there were feeble evidences of foetal life. Axis traction forceps are carefully applied, without effect. Then, as the foetal heart had ceased, craniotomy was performed. Weight of child minus cerebral contents was 9 pounds 11 ounces. Head diameters unobtainable. The patient made a protracted convalescence and underwent a secondary operation for repair of lacerations.

Case 2. Aet. 32. Second pregnancy. History of of forceps delivery six years before. The child was born living and survived. Its size at birth was unknown. When I first saw the case forceps had been applied without result, and then podalic version had been done. One leg was delivered and the breech was arrested at the brim. The patient was in a very bad condition from traumatism and prolonged anesthesia, and the child was dead. Examination showed the obstetric conjugate to be slightly over 4 inches. The trunk and arms were extracted with considerable difficulty, and as the after-coming head could not be drawn into the pelvic cavity it was perforated and delivered with the cephalotribe. The child weighed 11 pounds, 5 ounces. Head diameters could not be obtained. There was a tear of the cervix on the right side extending upward through the vaginal vault and into the peritoneal cavity. The vagina was extensively lacerated anteriorly and posteriorly. Patient was suffering from profound shock at the end of the operation. She rallied slightly, but died after forty-eight hours.

Case 3. Primipara. Aet. 25. True conjugate  $3\frac{7}{8}$  inches. First stage slow. Head remaining above the brim. Position L. O. A. The membranes were ruptured when the cervix was fully dilated, and axis traction forceps applied. It was immediately apparent that it would be a difficult delivery by this means, and abdominal operation was suggested in the interest of mother and child. This was refused by the family, and a still born infant was finally extracted with forceps. The child weighed  $9\frac{1}{2}$  pounds. Head diameters: S. O. B.  $3\frac{7}{8}$  inches, O. F.  $4\frac{3}{4}$  inches, B. P. 4 inches. Cervix and vagina were badly lacerated and contused. The pelvic floor was repaired at once. The shock of this operation was so great that recovery was doubtful for several days. The patient, however, improved slowly, though the repair of injuries did not result well.

These cases are nothing new or wonderful, but present a problem which is met with occasionally by all obstetricians. In each of them the



pelvic diameters were very near the classical standard, but still were insufficient to permit the safe passage of an unusually large child. The maternal traumatism was severe in all, and all suffered profoundly from shock, one fatally. The wounds resulting from such a delivery are not merely lacerated, but from severe pressure the tissues are much contused as well. This always invites sepsis, and frequently prevents primary union.

The comparison of such results with those that report and experience have shown may be expected in Cæsarean section, would make it appear that the latter is the minor, not the major operation.

*Technique.*—Development in the technique of Cæsarean section has been principally along the line of securing solid and permanent repair of the wounds. A few years ago a long incision both in abdominal and uterine walls was the usual procedure. Most operators now prefer a much shorter incision as being less liable to be followed by hernia.

Speed of operation has been regarded an important element in its success, and operators have vied with one another to effect a delivery in the smallest number of seconds. But there is no good reason why the same care should not be used in making the incision that is observed in any other abdominal case, and the difference of a minute or so is of no great consequence. Davis has reported two cases in which a loop of intestine was found anterior to the uterus, which might have been cut through if the abdomen had been opened at a single slash.

Ohlshausen still makes an abdominal incision of considerable length which begins at the top of the fundus and is carried down to within about 3 inches of the symphysis. He then raises the uterus out of the abdominal cavity, and places a large and thick mattress sponge between it and the intestines to protect them and to absorb the fluid contents of the uterus. He uses no ligature or other compression upon the cervix, believing that such compression predisposes to hemorrhage later. I have used the rubber ligature about the cervix (thus making a practically bloodless operation), without ill effects, but it is undoubtedly a possible source of danger that may well be dispensed with. Ohlshausen seeks to locate the placental site before opening the uterus. This is recognized by the increased convexity of the uterus and the large size of the veins in its immediate neighborhood. A sagittal

incision is then made directly through the fundus and prolonged on the side opposite the placenta, anteriorly or posteriorly as the case may be. It is held that by this means no serious bleeding will occur, but as a precaution 2 grammes of a 6 per cent. aqueous solution of ergotin are given hypodermically, before operation, and repeated if necessary.

A much shorter incision in both abdomen and uterus will serve the purpose, and presents certain advantages over the method just described. An opening  $3\frac{1}{2}$  to 4 inches long is sufficient, and this may be entirely above the umbilicus. It is claimed that in this location ventral hernia is less likely to occur. The hand is passed into the abdominal cavity and the uterus grasped and drawn into the median line so that it faces squarely to the front. It is pressed up against the anterior abdominal wall by an assistant and an incision of about the same length is made through the anterior aspect of the fundus without regard to the location of the placenta. If membranes be encountered they are stripped from the uterine wall as far as possible before rupturing, as they may be more easily separated at this time. The membranes are then ruptured and a breech extraction is performed. The trunk and arms are delivered just as in a breech delivery through the pelvis, and the head by the Smellie-Veit method. The child may be removed through these small incisions as the tissues of the uterus and abdomen stretch about it somewhat similarly to the vulvar orifice in the usual breech case. If the placenta occlude the opening into the uterus, it should be treated as a placenta previa—either pushed aside or incised and the child delivered through it. This technique is commended by the shorter and higher incision and the less exposure of the uterus. It has been observed that the greatest shock of the operation occurs when the uterus is lifted from the abdominal cavity, which is ascribed to manipulation and chilling of the large uterine tumor, and to the sudden change in the intra-abdominal pressure. Eventration of the uterus, on the other hand, makes it possible to avoid the placenta and to control serious hemorrhage if it should occur; and also to protect the abdominal cavity from the overflowing liquor amnii, meconium, etc. Although in themselves sterile these fluids do not predispose to surgical cleanliness.

A variety of uterine incisions has been used, but the most satisfactory and safest is a short one through the fundus. This part being thicker and denser is more likely to unite firmly.

After delivering the placenta, care should be taken to remove all membranes and clots from the uterine cavity, especially from the lower part before closing the wound. A dilated cervix favors after-drainage and if the operation is done before the onset of labor the cervix should be dilated instrumentally.

The uterus is best closed with deep interrupted sutures, so placed that they include a considerable mass of the muscle on each side of the wound, and just avoid the endometrium. Stout chromic gut is a suitable material for this purpose. It must be remembered that involution of the uterus causes a rapid shrinkage in its size, and that the sutures may soon become loose. They therefore should be drawn a little tighter than in an ordinary wound. Rupture of the uterus in a subsequent pregnancy has been known to occur, and was attributed to hasty and faulty closure of the wound. The surest guard against such an accident is a careful coaptation of the surface, and a wide sweep of the deep sutures. A few superficial sutures will close the peritoneal covering, and the abdominal wound is then treated as in any other case.

Vicious adhesions between the uterus and anterior abdominal wall while a remote possibility, are still not unheard of. The short incision at the top of the fundus or in its posterior wall, when this be possible, is the best preventive. The natural dextroversion of the uterus will carry its median line away from the median line of the abdomen.

Sterilization, if it be thought advisable, is best accomplished by exsecting a portion of each tube at its proximal end, and tightly closing each horn of the uterus as in the pus tube operation. This leaves the patient with the organs of menstruation intact.

In the cases I have observed, involution has been retarded little, if at all, the fundus being found at about the level of the brim by the end of the second week, and the period of convalescence has been much shorter and less complicated than in many so-called minor obstetric operations.

147 Clinton Street.

*Fibrolipoma of the Tonsil.* Benign tumors of the tonsil are very uncommon. Zolki, of Strassburg (*Arch. otol.* xxxv, 1906, p. 123) reports the case of a fibrous tumor of congenital origin in a child of seven years. Enclosed in the fibrous structure were small areas of adenoid tissue.

## TRANSACTIONS OF SOCIETIES.

### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

APRIL, 1906.

HOW CAN THE PHYSICIAN AND LAYMAN ACCOMPLISH MOST IN THEIR FIGHT AGAINST TUBERCULOSIS.

BY S. A. KNOPF, M.D.

#### *Discussion.*

Dr. J. H. Raymond said that it was always a difficult task to discuss a paper which had been prepared and presented by a reputed expert, but when that expert is an expert in fact, the task is an exceedingly difficult one. Dr. Knopf had made the subject of tuberculosis a special study for many years and his reputation as an expert in this field is so well known and the opportunities which have been offered to him for its study have been so many, and he had so thoroughly covered the ground in his address, that the speaker found very little left for him to say.

It might, however, be profitable if he dwelt for a few moments on the work which had been done by the Committee of the Bureau of Charities for the prevention of tuberculosis. Up to twelve months ago absolutely nothing had been done in this borough except what had been done by the Board of Health, and the work of that department was not what it would have been had it met with the co-operation and support of the medical profession. A little over a year ago the subject of taking up in Brooklyn, the work which had been undertaken and carried on so successfully by the Charity Organization Society in Manhattan was brought to the attention of the Brooklyn Bureau of Charities. This is not a public institution and is not connected in any way with the Charity Department of the city, but is a voluntary organization maintained and supported by philanthropically disposed individuals. It was thought best to place this work under the guidance of this organization, as it was thought that it would receive better co-operation and would be received with greater confidence by the community than if it had its origin in some new organization.

The first thing done was to appoint a committee of thirty men and women intimately connected with philanthropic enterprises. The next thing was to try to establish a special clinic. There was no dispensary in the city in which patients were given the necessary care and instruction in regard to this disease. Such pa-



tients are not as a rule welcome in a general dispensary. They receive medical treatment, but there is no one who has the time or the disposition to take the time to sit down with the tubercular patient and tell him what should be done for his own welfare and for the protection of those who come in contact with him. The literature of tuberculosis is replete with the statement by experts, that with a tuberculosis clinic the work of tubercular prevention must be inaugurated. One of the first steps which must be taken in preventing tuberculosis is the establishment of a clinic.

It has been suggested that instead of the establishment of tuberculosis clinics, the Health Department should employ a corps of physicians, who should visit the consumptives at their homes and give them there the necessary treatment and instruction. Such a plan is impracticable. We have in this borough, estimated, 9,000 persons suffering with tuberculosis. One-half at least of these are among the poor. Imagine what it would amount to to have a corps of inspectors sufficiently large to visit 4,000 persons and give them the necessary attention and education, and if there was money provided to organize such a corps, it would be difficult to find men sufficiently interested to do the work thoroughly well. But if such men were found could they carry scales around with them to weigh their patients? Could they carry the instruments for throat work with them, or X-ray apparatus? Could they indeed treat these patients as well at their homes as at a well-organized dispensary?

The committee met with some difficulties at the outset, and then appealed to the Board of Health and asked them to establish in Brooklyn such a clinic as they had established in Manhattan. They looked over the ground, went to house agent after house agent, and finally found a house which seemed to them to fill the bill exactly. The building was hired and fitted up and was about to be opened, when an injunction was served on the Health Department enjoining it from opening the clinic. The injunction was obtained temporarily, and since then has been made permanent, but the Health Department will carry the matter to the Court of Appeals. The Health Department does not desire to do anything antagonistic to the desires of the community. This is a work of education, and it was never dreamed that a dispensary located in this locality would be objectionable. Every city which has taken the work up has established clinics in the most thickly settled districts. No

one ever before dreamed that a tuberculosis patient could be a source of danger to the community by simply passing through the streets to a dispensary.

At the present time we have two clinics for tuberculosis in this borough. One at the Tillary Street Dispensary and the other at the Williamsburg Hospital. We have a zealous corps of physicians who are giving their time without remuneration to this work. Provision has been made not only to supply remedies, but also sustenance to the patients who are in need of it, giving them milk and eggs daily in connection with their medical treatment.

Dr. Raymond read letters giving the experience of other cities and the opinion of those connected with tuberculosis clinics as to the changes of such clinics. These letters have been published in the *BROOKLYN MEDICAL JOURNAL*.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, APRIL 5, 1906.

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The President, T. B. SPENCE, M.D., in the Chair.

### COMPLETE REMOVAL OF BOTH UPPER JAWS FOR SARCOMA.

DR. J. P. WARBASSE presented a patient whom he had operated on for sarcoma of the upper jaw. The patient was a man aged 37 years, and was referred to him by Dr. Droge. The history dated from last September with gradually progressing symptoms of involvement of both nasal cavities, showing the growth developing from the septum. The growth progressed rapidly, and within two months of the time that this man had observed disease of the nose both nostrils were completely occluded. The speaker saw him about the middle of December. Both nostrils were completely occluded, a mass protruding from each nostril, and the tumor projected down through the hard palate about in the median line. It seemed a hopeless case. However, he did a complete resection of both upper jaws, (Specimen presented.)

This case, seemed almost an inoperable one on account of the wide spread disease. The nose was flattened out over the face by the intranasal mass which was bulging through the nostrils. Still the speaker thought it worth while to make the attempt. He did a resection of both upper jaws by the following method: Both

external carotids were ligated. An incision was carried from opposite the outer canthus of each eye to the angle of the mouth, the soft tissues of the face, including the nose, were dissected up and turned up as a flap over the forehead. The malar processes were then sawn through by passing the wire saw through the sphenomaxillary fissure after lifting up the eye-ball. The nasal processes were sawn through, the soft palate divided from the hard palate, the reflected mucous membrane of the cheeks divided, and the two jaws wrenched out with lion-jawed forceps. The operation was rapidly performed, the wounds were closed after the typical method, and the patient was sitting up in two days.

Dr. Warbasse presented this man to show how slight a deformity can be made to exist after so extensive and mutilating an operation. One reason for this is that he took pains to saw obliquely through the malar processes and leave as much of the cheek bones as possible to support the soft tissues of the face. To the casual observer, one would not suspect that this man was minus both upper jaws. The scars of the incision are covered by the growth of beard. Dr. J. W. Russell has made a plate which the patient is not wearing at present, but which is intended to carry an upper set of teeth and serve as a septum between nasal cavities and the mouth.

The speaker added that this man was operated on in the last week of December. He did perfectly well and left the hospital in about a month, and has been going to business for the last six weeks, feeling well. Dr. Warbasse saw him April 4th for the first time after an interval of three weeks, when he discovered evidence of recurrence in the vault of the cavity. He had never operated on a case of sarcoma of the upper jaw, which in the beginning seemed so hopeless, and yet which at the end of the operation seemed so hopeful. He felt confident that he had gotten out the whole tumor when he had completed the operation. His experience with this case had rather discouraged him in this particular class of cases from operating on aggravated sarcomata of the upper jaw. He had just discharged from the hospital a man on whom he had done a secondary operation for recurrence, a case which seemed a very hopeful case in the beginning; and he expected to operate on the following day on a similar case in which the possibility of a cure was very slight. He had seen so much of recurrence that he was beginning to doubt the expediency of attempting radical operation in these very advanced cases of sarcoma of the upper jaw. It is rare that the

surgeon has an opportunity to operate upon these cases when operation would positively eradicate the disease, for at that time the tumor does not give the patient enough distress for him to consent to a mutilating operation. It is not until the growth occludes the nose, or presents upon the face or in the mouth that the patient accepts an effort to cure him, and then it is often too late. It behooves the rhinologist to be on the lookout, for he can do more than any other toward reducing the mortality of this disease by discovering it and recommending the proper curative operation.

#### *Discussion.*

Dr. A. T. BRISTOW said that he wished to say a word about a procedure which he had done a good many times in these inoperable cases without any expectation of curing them, simply a palliative operation, and more particularly the sarcomata that originate in the antrum, in which the patient suffers from intense pain, so intense that morphia does not seem to influence it. He had a patient, a big Italian, at the hospital who called for a revolver to shoot himself, so severe was the pain, and if he had any means of doing it, he certainly would have killed himself. He referred to the well known method of extirpating the carotids, first on one side and then on the other. He had one sarcoma case which lived a year after doing that; and in every case one result followed uniformly, that, after the extirpation of the carotids, all pain ceased and the tumor shrunk. The speaker did not offer the operation as hopeful for a cure of sarcoma of the upper jaw, as Dawbarn has done. In the lower jaw he thought the results were better.

It is an operation of a good deal of mortality, not because of the extent of the dissection involved, but partly because these patients are frequently in a bad condition. He had rather supposed that the position of the superior laryngeal nerve had something to do with the mortality. We all of us very commonly make huge dissections of the neck in cases of tubercular glands. It is not uncommon to start an incision at the mastoid and end at the clavicle. One never expects to lose a case like that, and yet if he make a much smaller dissection in the work of extirpating the external carotid artery, he will have sudden deaths occur. When the vessel is brought underneath the digastric muscle and pulled up, the fact must be recognized that this is the time to let up on the anesthetic, because the patient almost invariably stops breathing at this



time. The only explanation he could give is that the external laryngeal branch of the pneumogastric nerve crosses behind the external carotid at that point, and the traction on it causes an intense inhibition of the nerve. He has seen a patient die on the table the moment the Trendelenburg canula was admitted preliminary to the tracheotomy; and he attributed this case of sudden death to the interference with the external laryngeal. This extirpation of the external carotid is an operation of a gravity out of proportion to the dissection. There is practically no loss of blood in most cases, but even in a bloodless operation the patients often do very badly.

DR. M. FIGUERA said that he had operated six times for exsection of the external carotid, and he never saw what the previous speaker referred to, that is when the stump of the artery is pulled under the nerve that respiration is interfered with. In these six cases he had never noticed it, and in every case he dissected up to the artery and passed the stump under the nerve, and then injected the terminal branches with parafine. The only case in which he had trouble and the patient died was a case in which the external jugular vein was wounded and ligated. The vein was imbedded in a mass of tissue, and in passing the ligature around, he believed that the pneumogastric was involved in the ligature, and it was not found until the mass was excised, and he supposed the nerve was excised with it. The man began to breathe slowly, and then breathed slower and slower until he died.

#### TETANUS CURED BY ANTITOXIN.

DR. A. T. BRISTOW presented a patient, who, he said, had been cured of tetanus by the use of the antitoxin of tetanus after the manner of Rogers, that is to say, by means of lumbar puncture, and by injections into the main nerve trunks supplying the part from where the tetanus originated.

This man came into his service at the Long Island College Hospital on the eleventh day after having received a punctured wound of the base of the great toe. At that time his temperature was  $103^{\circ}$ , his jaws were rigidly closed and his abdominal muscles were in a state of tonic contraction. He had severe pain in the region of the diaphragm, and the muscles of the back were contracted. As yet he had no actual convulsions. The speaker sent for some fresh antitoxin from the Board of Health, gave an anesthetic, and in the left lateral position made a lumbar puncture and withdrew 10 c.c. of spinal

fluid, immediately injecting the full contents of the vial of antitoxin into the spinal canal. After withdrawing the needle, he cut down on the sciatic nerve and injected 5 c.c. of antitoxin into the sciatic nerve. Turning the patient over he made an incision over the anterior crural and injected that nerve with 5 c.c. of antitoxin. He then closed the wounds and sent the patient back to bed. Every day thereafter for a period of five days the patient received 10 c.c. of antitoxin administered in the same manner as the antitoxin of diphtheria. He also received 20-grain doses of chloral and 40-grain doses of sodium bromide for the first twenty-four hours or so; and subsequently the dose again halved until he was getting 5 grains of chloral and 10 grains of bromide.

The evening of the first injection his temperature went up to  $104^{\circ}$ , but the next morning it had fallen to  $99^{\circ}$ . The rigidity of the muscles of the jaw persisted for thirty-six hours, and then it was observed that the jaw was relaxed in sleep. Gradually all the symptoms improved. He was finally enabled not only to open the jaw in sleep, but also when awake. Slowly all the symptoms subsided, and he made an excellent recovery. There was no wound when he was received into the hospital—there was simply the scar where the wire nail had entered; nevertheless the speaker cut out a good sized piece of tissue, the object being to get rid of the nidus which was occupied by the tetanus bacillus.

This was not an early case of tetanus, Dr. Bristow said, but it belonged to the middle class. As the tetanus occurred on the eleventh day after injury, it could neither be called an early nor a late case.

#### GASTRO-ENTEROSTOMY FOR STRICTURE OF THE PYLORUS.

DR. W. H. RANKIN reported the case of a young colored woman, 27 years of age, whom he was called to see for vomiting, which was so persistent as to disturb the family with which she was employed. She was removed to St. John's Hospital for observation and treatment.

The story of her illness was one of increasing distress after taking food and finally vomiting the contents of the stomach within a few hours thereafter. The patient observed that soup and rice gave her less distress than other articles of diet, and so she learned to deny herself other nourishment. She began to lose strength and body weight, and she was scarcely equal to the exertions of her employment as a nursery

maid. No reliable family history could be obtained and any knowledge of venereal disease was denied. She was still well nourished and the heart and lungs were in good condition. At this time she was unable to retain any nourishment. After washing out the stomach she would continue to eject unstained frothy mucus for several hours. There was no pain after taking food.

A physical examination of the abdomen disclosed a small mass within the abdomen a few inches above and slightly to the right of the umbilicus. It moved to and fro with the respirations and was movable from side to side. There was no muscle spasm, and under the fingers the tumor seemed smooth and symmetrical. The stomach was slightly dilated and somewhat lower in the abdomen than normal. She was given nutrient enemata, and stimulated preparatory for operation by Dr. Brinsmade. The abdomen was opened slightly to the right of the median line, and the mass found to be a very much thickened pylorus with the tumor extending somewhat into the stomach and intestine. There was no apparent glandular involvement, and posterior gastro-enterostomy was done by incising the transverse mesocolon and bringing the posterior wall of the lower part of the greater curvature of the stomach into the opening when the mesocolon was sutured to it. A loop of jejunum near the duodeno-jejunal flexure was brought up and united to the stomach with a Murphy button. Two or three reinforcing sutures were placed on either side of the button to prevent any dragging on it. The stomach and intestines were carefully replaced and the abdomen closed.

The patient continued to vomit the same frothy mucus for two or three days after the operation, but from that time on she was able to retain broth without difficulty. When solid food was given she was able to retain it without discomfort, and at the end of six weeks she left the hospital feeling well.

In May, 1904, some four months after the operation, the speaker was called to see her when she was having some difficulty in retaining food, but a brisk purge and a change to better quarters brought prompt relief. Since that time he was not aware that she had had any difficulty with her stomach, and she has been able to partake of food of all kinds freely and without mishap.

While she was in the hospital she was given iodides and mercury with some benefit. In December, 1905, she returned to the hospital for

an operation on the elbow joint. While under the anæsthetic the pylorus was palpated and found slightly higher in the epigastric region than its normal position, and possibly a little smaller than at the time she was first examined.

#### *Discussion.*

DR. M. FIGUEIRA said that the presence of a large pyloric tumor is by no means an indication of malignant disease of the pylorus. The presence of an ulcer that has eroded close to the peritoneum may produce an irritation and a formation of new connective tissue that will cause a large tumor, yet when a gastro-enterostomy is performed and the irritation is taken away from the pylorus, the tumor disappears and is gradually absorbed, showing it was not malignant disease. Recently several cases of this kind have been published. Mayo, he thought, reports several cases in which the presence of a large tumor at the time of operation made him doubt very much whether the case was not a malignant one, and subsequently when gastro-enterostomy was performed the tumor was found to be inflammatory and not malignant. The fact that three years after the operation Dr. Rankin's patient remained well and the tumor subsided seemed to point to a tumor of inflammatory origin and not malignant disease.

#### IMPROVEMENT FOLLOWING EXPLORATORY LAPAROTOMY IN CANCER OF THE STOMACH.

DR. W. H. RANKIN reported a case as follows: A. R., æt. 49, married, entered St. John's Hospital September 25, 1902. The family history was negative. As to personal history the patient had been fairly well until within a year when she commenced to have some distress after eating. For two years or more before she entered the hospital she noticed any pressure or constriction of the stomach gave more or less discomfort. In July, or two months before she entered St. John's, the pain became severe an hour after eating and persisted until she would vomit and empty the stomach, when the pain would cease. A few weeks later she could not retain food, was suffering continuous pain, and was rapidly becoming emaciated.

On palpating the abdomen in the epigastric region a mass could be defined, and exploration preparatory to any further surgical measures was decided upon. When the abdomen was opened and the stomach brought into view, its anterior wall was seen to be the site of malignant disease. The pylorus was not involved, but



some of the glands were enlarged. As there was no obstruction whatever in the pylorus, the stomach was replaced in the abdomen and the wound closed. Although she was in a very weakened condition when she entered the hospital and took the anesthetic, she rallied well, and, strange to say, within three days was able to retain and enjoy nourishment for the first time in weeks. She was soon able to get out of bed and rapidly gained in weight and strength. Light food gave her very little discomfort and she was quite free from nausea. She left the hospital October 18, after being there 23 days. Her physician informed the speaker that for three or four months she was able to take care of her household duties, but the cancerous tumor grew rapidly, and the patient again commenced to lose weight and strength, and after six months was found dead in bed. Possibly the rigidity of the muscles of the abdominal wall following the operation and the subsequent adhesions had much to do with the amelioration of the symptoms.

#### *Discussion.*

DR. W. B. BRINSMADE said that these two cases were of marked interest to him. When he operated on this colored girl she was in a marked state of emaciation and starvation, vomiting everything she took, and the abdomen was opened with the hope of being able to do something. When he saw the size of the tumor and the amount of lymphatic enlargement in the abdomen he was afraid to do any removal, and did the procedure Dr. Rankin had referred to. Three years have passed, and the speaker finds this mass is still present, but the patient is doing household work and is apparently in good health.

Dr. Merzbach saw the case three weeks after the operation, and it was on his suggestion that she was put on mixed treatment. She disappeared from view after leaving the hospital and has not carried out any line of treatment since then.

The speaker said that he did not know whether it would have been better in these two cases to do a radical operation, but from the outcome it seemed the conservative method worked pretty well. He had no idea what the nature of that tumor was; he did not believe it was syphilitic. No history of syphilis could be obtained and anti-syphilitic treatment did not seem to improve her.

#### THE CAUSES OF NON- AND DELAYED UNION IN FRACTURES.

DR. WARREN L. DUFFIELD read a paper with the above title, for which see June issue.

#### *Discussion*

DR. J. P. WARBASSE thought that there is a great deal to be said on this subject of delayed union. He believed the term non-union is usually employed erroneously: most cases which are designated as non-union should properly be termed delayed or defective union, for union will and can be ultimately accomplished. He believed that the text-books and general teaching lay too much stress upon the relation of the constitutional condition to this disease. He was convinced that it is very largely a local matter. There are two chief causes which contribute to that, and the most important of these is defective apposition. Formerly we were satisfied with apposition, which we are not satisfied with now, since we have been able to examine the bone relations with the X-ray. In cases in which, as far as our external examination goes, we can feel that we have pretty good apposition, when we examine these cases with the fluoroscope we discover often that there is very defective apposition. The interposition of muscle fibres or fascia between the bone ends is a common occurrence; the tilting up of a fragment between the bone ends, is a common thing and contributes to delayed union. Next to this in importance, he thought, is defective immobilization; and when we have spoken of these two conditions, we have practically disposed of the etiological factors of delayed union. When we have these conditions, we see the bone ends very quickly surrounded by a deposit of fibrous material, which is inflammatory in character—it is the product of an inflammatory condition due to mechanical irritation, and is inflammatory just as much as a condition is inflammatory which is due to the mechanical irritation of the ptomaines of micro-organisms. The bone ends become surrounded by scar tissue, as it were, which contracts, interfering with the circulation, and the union is hampered and the nourishment of the bone ends is impaired.

The reader of the paper referred to the use of the plaster hip splint of Senn for the treatment of impacted fractures of the neck of the femur. The speaker knew of no more iniquitous piece of mechanism for use in the surgery of the aged than this hip splint of Senn. He had seen it do a great deal of harm, and he believed that enough surgeons have had that experience to

make this a rather obsolete method of treatment. These old people are better off with delayed union than with too strenuous efforts to accomplish union; and if delayed union is common among the aged, he thought it does the surgeon a great deal more credit than a fatal effort to effect union.

#### ECHINOCOCCUS CYST INVOLVING THE ENTIRE LEFT LOBE OF THE LIVER.

DR. E. A. PARKER reported the case of an Italian laborer, aged 30, who in the spring of 1904 was seized with intense pain in the upper abdomen which lasted two days. At intervals of two or three months the pains recurred accompanied by jaundice.

February 18, 1906, on admission to the hospital, on palpation there was found a large, tender, painful tumor occupying the region of the gall-bladder. The temperature was 97 degrees. The following day he was operated on. The usual vertical incision for gall-bladder operations having been made, the cyst came into view. It was adherent to the right lobe of the liver just above the gall-bladder and extended to the left. The general peritoneal cavity being well protected by laparotomy pads, an aspirating needle was inserted and about eighteen ounces of clear fluid drawn off. The sac contents being under high tension, a large quantity escaped beside the needle and was caught in the pads. The sac being incised sufficiently to admit the entire hand, the diaphragm was felt superiorly, the aorta posteriorly, the abdominal wall to the left and the liver to the right. Irrigation with peroxide and normal salt solution rendered easy the removal of the inner lining. A portion of the sac was excised, the remainder sutured to the parietal peritoneum and drainage gauze inserted. The wound was closed, excepting the opening left for drainage, with crossed silk-worm gut sutures. A blood count made March 12, 1906, showed leucocytes 9,000, neutrophiles 50.5 per cent., eosinophiles 22 per cent., lymphocytes 26 per cent., basophiles 1.5 per cent. April 5, 1906, when the wound was nearly healed, the blood count was: Red cells, 7,680,000; white cells, 13,200; neutrophiles, 54 per cent.; large lymphocytes, 24 per cent.; small lymphocytes, 6 per cent.; eosinophiles, 12 per cent.; basophiles, 0.6 per cent.

#### GASTRO-JEJUNOSTOMY FOR CARCINOMA OF THE PYLORUS AND DUODENUM.

DR. E. A. PARKER reported the case of a man,

forty-four years old, who have a history of being constipated for six months, with distension of the stomach after eating for four months. Four weeks ago he began to vomit food and enormous quantities of bile. He lost in strength and weight and a tumor could be felt at the pylorus.

He was operated on at the Williamsburgh Hospital, January 12, 1906. A vertical incision was made, and the pylorus, duodenum and glands were found involved in the growth. A posterior gastro-enterostomy with the Murphy button was done. Twenty-two days after the operation the button was passed. He was discharged from the hospital much improved in general health and was taking a restricted solid diet.

#### REMOVAL OF FRAGMENT OF RIB PENETRATING THE LUNG.

DR. E. A. PARKER reported the case of a man, a truck-driver, thirty-five years old, who on August 21, 1905, was brought in an ambulance to the Williamsburgh Hospital, having been crushed by the wheels of a truck. The first, second, third, fourth and fifth ribs of the left side, the inferior maxilla, the right radius and ulna were fractured, and the sternal end of the right clavicle was dislocated. The following day a traumatic pneumonia developed. September 11 pus was evacuated through an incision in the upper part of the left chest. September 30, under ether anesthesia, a fragment of the second rib one and half inches in length, penetrating the left lung, was removed. November 21st he was discharged from the hospital in good condition.

#### GENERAL PERITONITIS: APPENDICITIS: OPERATION: RECOVERY.

DR. A. RAE reported a case with the following history:

Patient, F. B., male, aet. 26 years. The patient spent the afternoon and evening of August 3, 1905, at a nearby seaside resort and partook of a liberal fish dinner. At about 2 A. M., August the 4th, he was seized with cramps in the abdomen: vomiting and purging followed. He was seen at 9 A. M., August 4th, with tenderness over entire abdomen, not exaggerated over region of the appendix. Temperature 100, pulse 84. The patient had taken a dose of castor oil at 8 A. M. The speaker prescribed a combination of deodorized tincture of opium, salol, etc., and being obliged to go out of town, asked a colleague to see patient in the evening.



The next morning found the patient fairly comfortable, but with an abdominal wall that was boardlike throughout its entire extent. During the night he had taken all but a few drops of two drachms of the tincture of opium which had been prescribed in ten minim doses if the pain continued.

A general peritonitis was fully established, which after ten days yielded to persistent treatment by means of bowel irrigations every six hours and the continuous application of large flaxseed poultices to the abdomen. On the 15th of August the patient seemed convalescent and was sitting up, the abdominal conditions apparently restored to normal. On the 17th pain in the region of the appendix called for examination, and it was evident that the organ was in trouble. On the 18th it became necessary to operate and that evening the appendix was removed. It was dissected out of a mass of adhesions, was rigid, clubbed, and had a degenerate mucosa. There was no evidence of perforation and no pus; but an abundance of serous fluid. A small drain was left in for two days. An uninterrupted recovery followed.

The interesting questions are as to whether the diagnosis of ptomain poisoning made at the beginning of the attack was an error, and whether the entire condition was due to the changes in the appendix.

#### *Discussion.*

DR. J. D. SULLIVAN was inclined to look upon the first attack as an acute appendicitis of a plastic character; that the disturbances caused by indigestion lit up a latent morbid condition of the appendix, which contained pathogenic bacteria, and although the inflammation temporarily subsided the bacteria on the toxins exuded through the walls of the appendix and set up a peritonitis of a plastic character. He would look upon this case as an attack of peritonitis due to a primary attack of appendicitis. He did not think it is necessary to have pus or a perforation of the appendix in order to have an inflammation of the peritoneum, and he was inclined to believe that idiopathic peritonitis is very rare, if it ever occurs.

#### ECTOPIC PREGNANCY.

DR. W. S. SIMMONS reported two cases. He said that the first patient whose case he wished to report was a young married woman of 22 years. She had been married one year. Her husband was a medical student. Her menstruation had been perfectly regular and she had

never had any trouble. She went over one menstruation period for seven days, and then it came on with the history which we have in these cases, the history of coming a little and then stopping and then coming a little more. This went on for four or five days. There was great pain in the abdomen radiating down the left thigh. On examining her he found a markedly retroverted and very adherent uterus which could not be replaced. Dr. Bristow saw the case with him, and thought an ectopic pregnancy was the most probable thing. She was taken to St. John's Hospital, and the next day the abdomen was opened, and there was an ectopic pregnancy unruptured in the right tube, although the pain, strange to say, ran down the left thigh. The uterus was straightened and suspended, and she made an uninterrupted recovery.

The second patient was 28 years of age and unmarried. For two months she had not menstruated. She took some pills, with a satisfactory result according to her history. There was something, as she expressed it, which came away from the uterus, there was quite a flow which lasted for several days, and then it stopped somewhat and there was a discharge with a bad odor. She consulted a physician and he curetted her. She went along all right after that for a week. Then she had some more discharge from the uterus and was curetted again. Two days after that she complained of great abdominal pain and tenderness. She had some pain in the chest, began to cough, and had a chill with temperature of 101 degrees. Her temperature went down next day, but the pain was greater. Two days later she had another chill, great tenderness over the whole abdomen and a temperature of 104 degrees. Bimanual examination revealed a uterus not markedly enlarged and a large mass in the posterior cul-de-sac completely blocking up the pelvis between the rectum and uterus, extremely tender and fluctuating. He did not have much hesitancy in that particular case of diagnosing pelvic abscess.

She was operated on the next day at St. John's Hospital. The first thing he attempted to do was to aspirate through the posterior vaginal wall, but the vagina was so small that he could not introduce a speculum. Then he made an incision in the median abdominal line, and immediately upon opening the abdomen he could see a bloody tumor, and it was evident what was present. The adhesions were separated, and the hemorrhage was as severe as he had ever seen. In the clots was found a fetus of two or three months development surrounded by an amniotic

sac which contained fluid. It was undoubtedly a case of intra-abdominal pregnancy, that had ruptured from the tube, probably a month or six weeks before, and had become attached to the intestine. The hemorrhage was difficult to control. A clamp was placed on each broad ligament on both the uterine and parietal end and it had no effect on the hemorrhage whatever. The speaker packed six towels in the pelvis between the uterus and rectum, and that controlled it. The woman had to be infused on the table, but she eventually went on to complete recovery.

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## THE BROOKLYN GYNECOLOGICAL SOCIETY.

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A. A. HUSSEY, M.D., Editor.

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STATED MEETING, APRIL 6, 1906.

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The President, J. O. POLAK, M.D., in the Chair.

### TETANUS OCCURRING POST-PARTUM.

DR. S. J. MCNAMARA reported the case of a primipara, who was taken to the hospital December 15, 1905, after unsuccessful attempts at delivery at home. She was delivered of a dead fœtus by version. Two days after delivery she complained of stiffness of the jaws, which was thought to be due to manipulation during anesthesia. The patient felt well and made very light of her sore jaws. The temperature for the first week never went above 100 degrees, except the post operative rise immediately after delivery. The pulse ranged from 80 to 100. On the tenth day it ranged from 72 to 80, and on the eleventh day 56 to 60. The lochia was moderate in amount.

The stiffness in the jaws continued. Restlessness and insomnia became prominent symptoms, necessitating the administration of bromide and chloral and an occasional hypodermic of morphine. The next day she complained of pain and rigidity in the muscles of the neck and chest posteriorly. Chloral and bromides in very large doses were continued with but very little quieting effect. Morphine hypodermically produced sleep for short intervals. One hundred and twenty grains of chloral and two hundred and forty grains of bromide of potash per day failed to produce any noticeable diminution in the restlessness, or in the number of convulsions. At the

end of two weeks the jaws were firmly set, admitting the end of a clothes-pin, which was kept there to prevent her biting her tongue when convulsive seizures came on. The number of seizures varied greatly. At times she would have one every five minutes for an hour, and then they would lessen in number. The attempts to administer food or medicine or to use the douche increased the frequency and force of the seizures.

Fourteen days after the onset of the disease tetanus antitoxin was procured. Twelve c. c. were administered in the morning and the same quantity at night. The rigidity and spasms extended down the back into the limbs. The spasms occurred every five minutes during the night. The temperature at this time was 102 degrees. The temperature had arisen some hours before the administration of the antitoxin. Next day fifty c. c. were injected with no sign of improvement. The 17th day sixty c. c. were given. The patient was very noisy and delirious, but slept three hours after a hypodermic of morphine. The pulse was 130, weak and irregular, temperature 104 degrees. The next day 40 c. c. of tetanus antitoxin were injected and the following day 40 c. c. The entire posterior surface of the patient's body was like a board. From the 20th to the 25th day the amount of tetanus antitoxin administered was gradually decreased. After the 26th day there were no convulsive seizures, and the patient made a fairly rapid convalescence from what was thought at times to be an almost hopeless condition.

The antitoxin was not used sooner because of its doubtful value as a therapeutic agent. How much it had to do with the result, it is impossible to say, but the speaker believed it should be given the credit. No history could be obtained from the patient of an injury, even a scratch or abrasion that might serve as a point of infection, and the onset so soon after delivery made it highly improbable that infection took place in the parturient canal.

### Discussion.

DR. H. C. KEENAN inquired if the result was due to the tetanus antitoxin or if the patient got better by herself. Apparently the injections after a number of days had very little effect on the disease, and, as he understood it, these cases will frequently get better by themselves, particularly if the attack is not severe. That point makes it difficult to tell how much use the antitoxin is in some of these cases. Apparently in the early cases it does no good at all, but in the



late cases it cures them all. These, however, get better under almost any form of treatment.

DR. C. JEWETT, in reply to an inquiry, said that this infection might have originated during labor. Hirst, of Philadelphia, reported a case in which he ascribed the tetanus to an intrauterine douche with tap water. He supposed that the bacillus was carried in the water.

A few years ago a case simulating tetanus very closely occurred in the Women's Hospital in New York after operation. This finally proved to be of hysterical origin.

The treatment of tetanus the speaker said consisted mainly in injecting the nerve trunks that lead from the infected region, and in intra-spinal injections of tetanus antitoxin. Injection of the nerve trunks would not of course be practicable in a case like the one just reported.

DR. S. J. McNAMARA, answering a question as to why the injection of antitoxin was delayed until the eleventh day, said that it was delayed for several reasons. One reason was he hesitated about accepting the diagnosis of tetanus. The symptoms were mild to begin with and the question of hysteria had entered his mind, and he had hoped and thought this was a hysterical condition, although the patient gave no history of any previous nervous disorder, and another thing was the difficulty which surrounds the diagnosis of tetanus. He applied to the pathologist to give him some aid in this matter, and he said the only way to make a diagnosis was to take scrapings from the seat of infection and have a guinea pig inoculated. That was difficult and hardly possible in this case. Another thing was the difficulty at the time of procuring antitoxin. The first was brought from private manufacturers and later on it was obtained from the Board of Health. He refrained from using the antitoxin until he felt sure it was a case of tetanus. He felt that the antitoxin had a curative effect upon the disease.

#### CYST IN CUL-DE-SAC CONTAINING PUS.

DR. C. JEWETT reported a case of pelvic sup-puration in which he found pus in one tube, and in the corresponding broad ligament and ovary. A cyst in the bottom of the cul-de-sac about the size of a duck's egg was enucleated intact. The cyst was thin walled, only slightly adherent and had no pedicle. After removal it was found to contain pus. His explanation was this: A posterior section had been made several weeks before for pus. After the vaginal opening closed a pus collection formed in the cul-de-sac. This

became walled off by plastic exudate which organized forming the cyst.

#### HYDATID MOLE.

DR. C. R. HYDE spoke of a case of hydatid mole that he saw recently, and which was entirely passed. The interesting part was that none of the vesicles came away previously, although the patient had been under observation for a week in the hospital. Another peculiarity of this case was that the patient showed every symptom of pregnancy, including a very globular uterus from which the cervix protruded as in a normal pregnancy. She felt no life, and was about five months pregnant. She had profuse hemorrhage at times; at other times no hemorrhage at all, and suddenly, when lying in bed one morning, this mass passed.

In talking with Dr. Jewett as to the appearance of vesicles in the discharge, the speaker understood him to say that vesicles rarely appear in the discharge. One would naturally think in these cases of mole, Dr. Hyde said, that vesicles would come away in the discharge, although if one examines the mole, the vesicles will be found quite firmly attached. All the text-books talk about the appearance of vesicles in the discharges.

#### Discussion.

Dr. C. Jewett said that the pathognomonic sign of vesicular mole is a discharge from the uterus having the appearance of white currants in red jelly. He had never been able to elicit that sign in the history of cases he had seen, nor had he seen the cysts himself except when he had brought them away. When he suspects hydatidiform degeneration he explores the uterine cavity for the cysts.

It is said that vesicular mole is frequently followed by deciduoma malignum, yet he never seen it after such a case. In view of the experience of other observers he thought the uterus should be curetted a second time within two or three weeks after the removal of hydatidiform cyst and the scrapings submitted to a histologic examination.

#### PAPER: REMARKS ON THE CÆSAREAN OPERATION.

BY WILLIAM P. POOL, M.D.

#### Discussion.

DR. C. JEWETT said the present status of Cæsa-rean section, as the doctor had said, is a remarkable example of the progress of modern surgery. Before the time when Säger introduced the modern technic, in 1882, the mortality of Cæsa-rean section was very high. In the large hospitals of the world hardly a case had been saved

To-day the mortality under favorable conditions should not be more than 2 per cent. to 5 per cent. at the most. In the Leipsic clinic the results have borne out this statement. The death rate in clean and timely Cæsarean section should be but little higher than the explorative laparotomies.

The time of operation Dr. Jewett would elect would not be the first stage of labor, but the time immediately preceding it. If the drainage is not likely to be good it can be made so. He had sometimes passed a thick rubber tube down through the cervix, an assistant drawing it out through the vagina. Yet in moderate pelvic contraction, so-called border line cases, we wait till the beginning of the second stage. The need of operating at all cannot always be decided till then.

His last case, reported at the preceding meeting, illustrated the possibility of imperfect drainage. The placenta in that case was implanted partly in the lower segment, placenta prævia, and both placenta and membranes were abnormally adherent. The membranes were removed with great difficulty and were torn. Fearing that the cervix might be shut off by a fragment of membrane still adherent over it, he dilated the cervix with a uterine dilator, *per vaginam*, before the patient left the table. The cervix was found relaxed, but as the result proved the os internum still remained occluded. No lochia appeared for three days, and the temperature at one time reached 103. By the end of the first week all was going well and the woman made a good recovery. It might be well in every case of operation before labor to make sure of drainage by passing a tube down through the uterus.

Concerning the technic the abdominal incision must be large enough to pass the head. Since the head measures  $13\frac{1}{2}$  inches in circumference the incision should be about six inches long. He did not see any advantage in making the incision mainly above the umbilicus as Davis does. Accidental accumulation of blood or liquor amnii deep in the peritoneum could not be so readily sponged out without risk of injuring the peritoneum. The Olshausen incision falls short of the symphysis by 8 cm. Dr. Jewett did not think the high incision necessary for the prevention of hernia. Hernia, in his experience, had never occurred after Cæsarean section except in one case in which there was suppuration. Cæsarean section wounds heal better than most other abdominal incisions. An abdominal incision like Olshausen's has one advantage, however, it brings the uterine incision well above the thinned out

lower segment. He had reported one case in which the lower end of the uterine incision came close to the bladder and he found the uterine wall so thin that he feared union would not be secure. Fortunately no trouble followed. The higher position is better from the standpoint of firm union. A possible objection to the Müller incision, longitudinally through the fundus, is the greater risk of intestinal adhesions. Yet this is not very great in clean work.

The great danger of cutting the intestine in operating rapidly, mentioned by Davis, he thought overdrawn. He had never seen knuckles of intestine in front of the uterus; if they were there, manipulation before opening the abdomen would drive them away.

When the placenta is implanted anteriorly he preferred to go straight through it. Less blood was lost than in separating the placenta and going around its edge.

It is not best to spend much time in the toilet of the uterine cavity. Usually the membranes come away easily and intact, and if they do not it is better to leave small fragments than to prolong the work in the attempt to remove them.

Secure closure of the uterine wound is one of the most, if not the most, essential points in the technic. He now used No. 2 chromated catgut for the deep suture, avoiding the peritoneum, giving them a wide sweep in the muscle and tying them a little tighter than usual. He did not include the peritoneum because he preferred to leave the knots buried. He closed the peritoneum in a welt over the deep sutures with a continuous Lembert suture of very thin plain catgut. This he did for the reason that within a few hours the deep wound was securely sealed by union of the peritoneum over it.

DR. H. C. KEENAN said there was one question he would like to ask, How is the bleeding stopped during the operation? Does an assistant grasp the uterus and pull it up against the abdominal wall, or is there a new method of stopping the bleeding during the progress of the operation?

DR. POLAK said that in the use of the tourniquet most of us were too apt to get the tourniquet tightened up on the uterus before the proper time, and thus cut off the placental circulation. Very little pressure is needed, for as soon as we start to suture the uterus, it will as a rule contract. It has been surprising to him to see a uterus, lying as a flabby mass pouring forth blood, start to contract and assume tone as soon as a single stitch was introduced.



One difficulty the speaker had had was in making his incision high enough, and Dr. Pool's statement regarding a fundal incision had impressed him, because in two instances he had made an incision which he had thought was high and long enough, yet when he came to deliver the baby, he found the incision had extended down and had done injury to the bladder. One of his patients had been in labor some time and the retraction ring was high and well marked. When he came to suture the lower angle of the uterine incision he found it impossible to use a large suture because of the thinness of the uterine walls.

The speaker called attention to the method of suturing, saying that there was an advantage in using long, straight Keith needles, and turning the uterine cut edges of the wound so that raw surfaces were lying side by side and running the needle straight through from uterine serosa to uterine serosa. In this way we may make a rapid suture of the musculature and by continuous catgut suture close the peritoneum over it.

The tourniquet does a certain amount of traumatism to the ligaments, unless properly applied and manipulated by an assistant. He did not think much damage could be done by an assistant by holding the ligaments,

Dr. Polak wished to emphasize the difficulty experienced in high forceps cases, and the amount of traumatism sustained by mother and child during such an operation. He had come to feel in a primipara when the head was not engaged, though engagable, that axis traction was fraught with much danger to mother and child. We see many of these cases that have been neglected, the waters are drained away, and version is practically impossible, and we attempt an axis traction, fully knowing that an hour's traction on the head is going to result in a stillborn or, in sufficient cerebral damage, to cause the death of the child after labor. This fact alone should spur us to develop the technic of Cæsarean and thus give both mother and child a better chance.

Primary suture of these lacerated tissues would often give poor results and necessitate a secondary operation. This could be avoided by putting the operation over for a day or two, and thus allow time for the swelling and congestion to subside.

DR. WILLIAM P. POOL, in conclusion, said, as to the time for operation, it appeared to him that the latter part of the first stage is the most favorable, because then the uterus is left at the

close of operation in much the same condition as after delivery by the natural passages, *i. e.*, the cervix is softened and dilated, and the more effectually, because it is dilated by nature's method. This should be considered in connection with the toilet of the uterus. Of course membranes retained in the uterine cavity at the end of labor are not thought to be a source of danger under ordinary circumstances. But he believed them capable of mischief if locked up in the uterus through improper dilation of the cervix. Some provision for drainage is a necessary precaution in all cases of Cæsarean section.

The short abdominal incision does present some disadvantages, particularly in the matter of controlling hemorrhage. We are able, in making this short and high opening in the abdominal wall, to expose only a small area of the uterus, and the uterine incision must be made in this area. If the placenta be directly in the way it is quite possible that a severe hemorrhage may occur. And under the conditions there is no way of stopping it but by packing the uterus. Davis, however, has stated that he has seen no hemorrhage that cannot be thus controlled until the sutures are placed, when the uterus promptly contracts. Dr. Jewett had said that we do not get ventral hernia after clean operations, which is true. The amount of traumatism in Cæsarean section is at a minimum, and there is every reason to expect primary union and a perfectly healed wound. So there seems to be no good objection to a somewhat longer incision than that now practiced in the New York Lying-In Hospital.

As to the incision in the uterus, however, it is well established that this should be as short as possible, and located well above the retraction ring, in the fundus where the muscle is thick and firm. Olshausen, in his cases, has reported fourteen in which there was reoperation. In some of these, three and four successive Cæsarean sections were done, and in all but one the old uterine wounds were found to be in good condition. In this single case a small hernia was found, the cause of which was traced to improper technique in suturing the wound. His incisions were confined to the fundus, either anteriorly or posteriorly, and the results speak well for the method.

The speaker thought that if a general favorable sentiment could be created toward the Cæsarean operation, and its application in such cases as had been mentioned, many lives, not only of children, but of mothers also, might be saved.

## BROOKLYN MEDICAL SOCIETY.

The 111th Regular Meeting of the Brooklyn Medical Society was held on Friday evening, March 16, 1906.

The President, Dr. ALFRED BELL, in the Chair.  
The following were admitted to membership:

## FOR ACTIVE MEMBERS:

J. F. Monihan, M.D.  
N. L. North, M.D.  
H. Schuhman, M.D.  
W. Truslow, M.D.

## FOR ASSOCIATE MEMBER:

W. A. Myers, M.D.

Announcement was made that the annual dinner would be held April 18, at the Willoughby Mansion.

Drs. W. B. Brader, J. C. Kennedy and H. E. Rogers were appointed as a committee to frame a protest from the Society against the passage of the bill licensing Osteopaths to practice in the State.

The President, Dr. Alfred Bell, was requested to continue as the Society's representative on the Milk Commission.

The *Clinical Section* was under charge of Dr. A. T. Bristow.

(1) Dr. G. W. VANDEGRIFT presented a patient with a hard mass involving the right superior maxillary region, probably an *osteosarcoma*.

(2) *Ectopic Gestation* with specimen presented by Dr. Charles Jewett.

(3) Dr. EDWIN FISKE reported for the chairman, Dr. Bristow, *A Case of Tetanus Cured by Intraspinal and Intraneural Injections of Antitoxin*. One spinal injection was given, and neural injections on each day for a week, into the Ant. Crural and Sciatic nerves. Improvement was noticed on the tenth day, and the patient was discharged from the hospital on the twenty-seventh day.

(4) Dr. Fiske reported a *Case in Which the Anterior Pyramids Failed to Decussate; all the Fibres Being Direct*. The patient had a partial paralysis of the left side and a divergent strabismus of left eye. Trephining on right side revealed nothing. Post-mortem showed a fracture of left temporal bone, and a large blood-clot on the left side. The right side was normal, excepting a small clot in the frontal region.

(5) Dr. Fiske presented a skiagraph taken of a *Partial Fracture of Head of Tibia*. The patient in an attempt to recover himself from falling had torn off a portion of bone to which was attached the tendon of the semi-membranosus muscle.

(6) *History of a Case of Leukemia with Presentation of Patient*, by Dr. T. H. Dexter. The spleen was markedly enlarged, urine showed slight albumin and diminution of urea. Hemoglobin 61 per cent. Red cells 4,224,000. Leucocytes 416,000.

The first paper of the evening was by Dr. John A. Quell, on *Recent Advances in the Suppression and Treatment of Tuberculosis*.

The second paper of the evening was on *Echinococcus Cysts of the Liver*, by Dr. Russell S. Fowler.

ALFRED E. SHIPLEY, M.D.,  
Recording Secretary.

## BROOKLYN MEDICAL SOCIETY.

The 112th Regular Meeting of the Brooklyn Medical Society was held on April 20, 1906, with Dr. ALFRED BELL, the President, in the Chair.

The following were admitted to active membership:

W. G. Reynolds, M.D.  
H. A. Wade, M.D.  
H. G. Webster, M.D.  
G. W. Hart, M.D.  
Edwin Eberle, M.D.  
P. V. Costello, M.D.

Upon motion, the Secretary was requested to address a letter to the Hon. J. W. Wadsworth, Jr., Speaker of the Assembly, urging the passage of the Stevens-Wainwright Bill, which would require "the labeling of medicinal preparations which contain alcohol and certain other narcotic or potent drugs, so as to disclose the presence and percentage of such ingredients."

The *Clinical Section* was under the direction of Dr. W. C. Wood.

(1) Dr. H. E. Rogers reported *Three Cases of Erysipelas*, in two of which careful search failed to reveal any wound through which infection might have occurred.

(2) Dr. W. L. Chapman gave a report of a *Case of Perforated Uterus*. The patient had aborted some time preceding the operation, which was performed by a supposed inflamed appendix, but upon opening the abdominal cavity a bougie was recovered.



(3) Dr. L. Grant Baldwin presented two cases. (a) *Specimen of Fibroid Uterus with Pregnancy.* (b) *Case of a child 14 years old with an Ovarian Cyst.* Sac and contents weighed 23 pounds.

(4) Dr. W. C. Wood reported three cases of *Spontaneous Rupture of Strangulated Hernia.* These were all cases in which nature was attempting to bring about a recovery, and not due to rupture in attempting to reduce the herniæ by taxis.

The paper of the evening was by Dr. Henry C. Kennan, on *The Pathology and Treatment of Puerperal Fever.*

Discussion was entered into by Drs. Hussey, Polak and McEvitt.

ALFRED E. SHIPLEY, M.D.,  
Recording Secretary.

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### BROOKLYN MEDICAL SOCIETY.

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The 113th regular meeting of the Brooklyn Medical Society was held on Friday evening, May 18, 1906. In the absence of the President, Dr. Alfred Bell, it was regularly moved and seconded that Dr. R. W. Westbrook act as presiding officer.

The following new members were admitted:

Dr. William Pfeiffer, 377 McDonough Street.

Dr. John M. Scannell, 409 Chauncey Street.

Dr. E. E. Wilson, 421 Lafayette Avenue.

Dr. John Rankin, 600 Jefferson Avenue.

Dr. W. W. Laing, 1 Cambridge Place.

The action of the Executive Committee was approved in donating \$100 from the funds of the Society for the physicians of San Francisco through the County Society of San Francisco.

The Clinical Section was under charge of Dr. J. W. INGALLS.

Dr. J. H. ANDREW reported a case of Puerperal Sepsis treated with anti-streptococcus serum. The injection of 40 units was given on the ninth day, at which time there was a temperature of 104°. The following day the temperature was 99°, and on the second day after injection there was a normal temperature.

Dr. H. A. ALDERTON presented a patient upon whom an operation for epithelioma of the auricle had been performed three years ago. Six months ago a slight recurrence, which was controlled by cautery and is now subsiding. The whole auricle was not removed.

Dr. H. A. ALDERTON also showed a patient with calcified formation of auricles.

Dr. J. W. INGALLS reported a case of abscess of ethmoidal cells. When first seen by him the abscess had ruptured into the right orbital cavity, pushing the eye outward and downward. An incision was made above the eyeball and the abscess drained. About a month later it was necessary to operate again. Dr. Ingalls curetted through the original wound and Dr. Arrowsmith curetted the diseased cells by way of the nose. Recovery slowly followed.

In the discussion, Dr. W. G. Reynolds referred to two similar cases of his own. Dr. Alderton did not favor ether for anesthesia, but preferred the local application of cocaine and adrenalin, thus avoiding the excessive hemorrhage common in these cases.

Dr. J. W. McEVITT presented two specimen of pus tubes, one about the size of a cocoanut, the other that of an orange.

Dr. A. N. THOMPSON reported for Dr. E. H. BARTLEY a case of intestinal obstruction. The diagnosis of the above named condition or appendicitis was made. Patient died before operation and post mortem revealed two feet of gangrenous intestine. The appendix was normal.

The paper of the evening was:

"HISTORY OF TWO MASTOID CASES," BY DR. H. A. ALDERTON.

Discussion by Dr. J. H. DROGE and Dr. T. H. DEXTER.

ALFRED E. SHIPLEY, M.D.,  
Recording Secretary.

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### EXAMINATIONS FOR THE NAVY

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Wm. W. Ireland, Major, Surgeon, U. S. Army, announces that a preliminary examination of applicants in the Medical Corps of the Army will be held at various military posts throughout the United States on July 31, 1906. Full information in regard thereto may be obtained from the Surgeon-General of the Army, and applications must be filed prior to June 30. Thirty years is the prescribed maximum age, and persons whose age exceeds that limit are not eligible for examination.

## Brooklyn Medical Journal.

WILLIAM C. BRAISLIN, M.D.  
Editor-in-Chief.

JAMES P. WARBASSE, M.D.  
JOHN A. LEE, M.D.  
Associate Editors.

CLARENCE R. HYDE, M.D.  
Medical News Editor.

G. L. HARRINGTON,  
Business Manager.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York. Authors desiring Reprints of their papers should state on the galley proof the number of Reprints desired.

Each contributor of an Original Article will receive five copies of the JOURNAL containing his article, on application at the Library of the Society, 1313 Bedford Avenue.

A limited number of black and white drawings to illustrate papers will be reproduced by the JOURNAL free of charge. Electrotypes will be furnished at cost.

Alterations of the proof will be charged to authors at the rate of sixty cents an hour, this being the printers' charge to the JOURNAL.

*Entered at Brooklyn, N. Y., Post Office as second-class matter.*

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BROOKLYN-NEW YORK, JULY, 1906.

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### THE PHYSICIAN IN CIVIC REFORMS.

In his admirable address delivered at the opening of the meeting of the American Medical Association in Boston, Dr. Mayo points the necessity for the physician taking the lead in initiating reforms in hygienic and sanitary matters. The average politician is either conscienceless or without consciousness of needed changes. The public is willingly ignorant of, or indifferent to, sanitary requirements until long-existing foul spots are tragically revealed. Public indignation may then severely attack local boards of health as in the case of the Packingtown revelations, and may ask how such things were allowed to exist if the medical profession was cognizant of them, and why the abuses had not been revealed by the representative medical journals.

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#### DR. WHALEN'S DEFENSE

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The Commissioner of Health of the City of Chicago, in his weekly bulletin bearing date of June 9th, states that the city's food inspectors in the "loop district" condemned and destroyed (presumably during the previous week) 4,980 pounds of meat and poultry. He further reprints an abstract from the biennial report of the city's Health Department which shows the past activity of the department in the matter

of food inspection. At the time of the present Commissioner's entrance upon his duties, about a year ago, he actively resumed the inspection of meats at the Union Stockyards, for some years previously in a state of suspension, except as to the "retail markets, commission stores, railway receiving depots and similar places."

During the ten months' inspection service ending May 31, 1906, at the Union Stockyards, slaughter and packing houses 5,164,392 pounds of meat were condemned and destroyed. This, however, included all the meat condemned by the Government and State inspectors. According to a City of Chicago municipal ordinance all meats condemned by outside inspectors must be destroyed "under the supervision of the city inspectors."

It appears also that on the 21st of March, 1906, there was an agreement, approved by the Mayor and Health Commissioner of the City of Chicago and by the Secretary of the Department of Agriculture, that the city and national departments "should endeavor to co-operate in every way and to work in close harmony, and that hereafter the Bureau of Animal Industry Order No. 125, with its amendments," should be the standard for meat inspection of the City of Chicago.

As a final word the Commissioner states his belief that his inspectors are doing their "full duty intelligently, squarely and unflinchingly."

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#### THE NEED OF NEW LEGISLATION FOR THE REGULATION OF THE MEAT PACKERS.

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In view of the strong defense of his inspectors by Dr. Whalen, it seems quite evident that the inspectors themselves have been acting up to the full limit of their powers. The difficulty in the way of thorough meat inspection has been that up to the present the law has not provided the inspectors with powers sufficient to cope with the situation.

The publicity into which the meat packing industries has been thrown by the special committee appointed by the President will, it is likely, do more to obtain proper legislation for the control of this business than any other plan that could have been devised. The only possible method of obtaining suitable legislation has been tried and the result will be a distinct betterment of present conditions.



## OBITUARY.

### WILLIAM JAMES GILFILLAN, LL.B., M.D.

In recording the death of Dr. Gilfillan it is with sorrow at the loss of a friend and fellow-worker in behalf of suffering humanity, but a pleasure to know that he was permitted to practice the healing art for the large number of years that was his to enjoy. Born in County Derry, Ireland, in 1839, he died in the City of Brooklyn, May 23, 1906. During his professional life he was in practice in this city.

His father was Alexander Gilfillan, and his mother was Mary Archbold, both of Ireland.

The doctor was educated at Queen's College, Dublin, and graduated M.D. from the College of Physicians and Surgeons, New York, in 1862, receiving the degree of LL.B. from the Law Department of Columbia University in 1877.

From 1863 to 1865 he was assistant surgeon in the United States Navy. After the close of the war he was for a time surgeon to the Brooklyn Hospital, and held the position of Assistant Sanitary Inspector in the Brooklyn Health Department from 1870 to 1874. He was a member of the Medical Society County of Kings from 1868 to 1906.

He was active in Masonic matters, being a member of Central Lodge, No. 361, F. A. M., of which he was Master in 1892; Clinton Commandery, No. 14, K. T.; Kismet Temple A. A. O. N. M. S., and the Brooklyn Masonic Veterans.

WILLIAM SCHROEDER, M.D.,  
*Chairman of Historical Committee.*

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. George H. Pierce has removed to 344 Washington Avenue.

Dr. William B. Brinsmade has been appointed full attending surgeon to the Long Island

College Hospital in place of Dr. H. Beeckman Delatour, resigned.

Dr. Albert M. Judd, of 188 Sixth Avenue, met recently with a painful accident while "cranking" his automobile, necessitating his removal to Seney Hospital. Someone, during the doctor's absence from his machine, had thrown in the high gear lever. When the doctor started to crank his machine it started quickly, crushing him between his machine and another in front of it. The doctor received a fracture of two ribs and painful body contusions. At present he has left the hospital and is resting comfortably in his home.

Dr. Ernest Palmer, of 155 Clinton Street, has just returned from a successful fishing trip in Maine.

Columbia University, at its recent commencement, conferred the degree of Doctor of Science on Baron Kanehiro Takaki, M.D., F. R.S.C., Surgeon-General of the Japanese Navy.

At the eighth annual commencement of the Medical School of Cornell University fifty-three men and five women received degrees of Doctor of Medicine. The vice-president of the graduating class was a Japanese, Toyokiko Campbell Takami.

The Committee on Hospital Needs and Finances, of which Mr. John E. Parsons is chairman, has filed its final report with the Managing Boards of the several hospitals in the city. In its report the Committee says that it "is strongly of the opinion that a system of uniform accounting, which shall take into consideration differences of conditions affecting different hospitals, is exceedingly desirable. Some hospitals are large, and some are small; some are in densely crowded districts, and some are in the outskirts; some are general hospitals, and some exist to meet only special needs; some have ambulance service, and some have not. It is clear that the first step toward a uniform accounting which shall be useful is an intelligent classification of the various hospitals of the city so that in the comparisons to be made as a result of uniform accounting only institutions that are fairly comparable shall be classed together. Given such a classification, this Committee is of the opinion that uniform accounting will have a double value both for the hospital management and for the public. Under such conditions, uniform accounting will not only reveal unwise and unnecessary expenditure, if that exists, but will also bring out, so that it cannot be overlooked, all specially

meritorious administration." "It is a pleasure for this Committee to report that while it has been proceeding along this line four of the largest general hospitals of the city, the New York, the Presbyterian, Roosevelt and St. Luke's Hospitals, have perfected a system of uniform accounting for themselves." The Committee recommends that the system of the four hospitals mentioned be adopted as the model for all hospitals in the city, with such modifications as may be necessary in the case of similar institutions. An increase in the city's per diem allowance to the hospitals already receiving municipal aid is suggested after the uniform system of accounting is adopted.

On Wednesday morning, June 13th, in St. Ambrose's Church, Chicago, Ill., Miss Elizabeth Phelan, the daughter of Mrs. Elizabeth Phelan was married to Dr. James Mac Evitt, of Brooklyn, by the Rt. Rev. Bishop Muldoon of Chicago. Miss Isabella Phelan the bride's sister and Miss Mathilde Fitz Patrick of New Orleans, La. were the bridesmaids. Dr. John Cowell Mac Evitt, the bridegroom's brother, was the best man and Mr. Alfred Kyle of Chicago, first usher. After a wedding breakfast, Dr. Mac Evitt and his bride left for a honey-moon trip through the Great Lakes and Canada.

The News Editor will be pleased to publish the summer addresses of any Brooklyn physicians who so desire. Personal items, hospital and dispensary appointments, and society transactions are also requested.

## BOOK REVIEWS.

**A MANUAL OF TOXICOLOGY: A Concise Presentation of the Principal Facts Relating to Poisons, with Detailed Directions for the Treatment of Poisoning. Also a Table of Doses of the Principal and Many New Remedies.** By Albert H. Brundage, A.M., M.D., Phar.D. *Fourth Edition, Revised and Profusely Illustrated.* N. Y. (Brooklyn Borough), The Henry Harrison Co. London, Bailliere, Tindall & Cox, 1904. x, 11-401 pp., 10 col. pl. 16 mo. Price: Cloth, \$2.00.

This Manual, now in its fourth edition, remains the most complete and comprehensive work of its kind for the use of the general practitioner and students of medicine and pharmacy that has ever been issued. Many colored illustrations have been added to this edition showing the effect of the different poisons on the gastric mucous membrane, otherwise the general arrangement remains the same as in the preceding edition. Part I includes a general consideration of the poisons, including the effect, classification, and general treatment. Part II takes up the individual poisons, giving history, symptoms and treatment. The treatment being very explicit, telling what to use, how to use it, how much, how often to repeat it, how long to continue it, what not to use, in fact everything that one might be required to know in an emergency. Part III gives a table of indications of the various symptoms which are met with in cases of poisoning. Parts IV and V give the

various tests and methods of procedure in searching for the different poisons. Part VII, causes and modes of sudden death. Part VIII, interpretation and treatment of unconsciousness or coma. Part IX takes up the history, symptoms and treatment of chronic poisoning and drug habits, such as are produced by alcohol, arsenic, chloral, cocaine, ether, lead, mercury, opium, etc. The Appendix contains dose tables for single dose, and maximum daily doses; directions for making post-mortems; key to urinalysis, laws relating to poisons, etc. The book is of pocket size, the poisons alphabetically arranged so that any information can be quickly obtained and relied upon, thus making it of exceptional value to those who may be called upon to treat cases of poisoning promptly.

WILLIAM SCHROEDER, JR.

**A TEXT-BOOK ON THE PRACTICE OF GYNECOLOGY FOR STUDENTS AND PRACTITIONERS.** By William Easterly Ashton, M.D., LL.D. With ten hundred and forty-six new line drawings, illustrating the text, by John V. Altender. *Second Edition.* Phila. and Lond., W. B. Saunders Co., 1906. 1079 pp. 8vo. Price: Cloth, \$6.50, net; half morocco, \$7.50, net.

This is an excellent text-book for students and for practitioners, as all unnecessary matter has been eliminated and the reading is concerned only with necessary data. Appendicitis and movable kidney are treated in a concise and pithy manner, though general surgeons will hardly admit their place in a gynecological text-book. Yet these two conditions are so often intimately associated with female septic disorders that every gynecologist should be prepared to undertake any operative procedures necessary for their relief.

The text is profusely illustrated and especially is the technic of major operations as abdominal and vaginal hysterectomy, salpingo-oöchorectomy, ovariectomy, and myomectomy well demonstrated—each successive step being pictured by a careful drawing. One thus has a complete mental photograph of every gynecological operation in its entirety.

The bladder, urethra, and ureter receive special attention, much more than is usually given to these organs in most text-books. Conservative gynecology of the uterus and appendages is faithfully treated. Minor points, such as the vaginal douche, water drinking, baths, indoor exercises, saline and intra-venous injections are all appropriately described, and the directions for their employment are so explicit that they can be intelligently and easily followed. In fact, both the medical and surgical aspects of gynecology are fully considered, thus presenting a treatise which gives a detailed account of the practice of gynecology.

The question, however, can be raised, is it wise to write a text-book on gynecology for general practitioners, for they certainly could not operate on major cases merely from knowledge gained by reading any text-book. We doubt whether Dr. Ashton meant this, for this reason, the title of the book seems inappropriate.

CLARENCE R. HYDE.

**REFRACTION INCLUDING MUSCLE IMBALANCE AND THE ADJUSTMENT OF GLASSES.** By Royal S. Copeland, A.M., M.D., and Adolph E. Iberschoff, M.D. Phil., Boericke & Tafel, 1906. xi, 144 pp. 8vo. Price: Cloth, \$1.50, net.

This elementary treatise is not intended to take the place of more exhaustive works on refraction. The authors have aimed to help the student in understanding some of the principles to be observed in fitting glasses. Most of the illustrations are original and serve to elucidate the text.

**THE OPHTHALMOSCOPE AND HOW TO USE IT: With Colored Illustrations, Descriptions, and Treatment of the Principal Diseases of the Fundus.** By James Thorington, A.M., M.D. Phila., P. Blakiston's Son & Co., 1906. 298 pp., 12 col. pl. 8vo. Price: Cloth, \$2.50.

Anything Thorington may be pleased to say, on refraction or any kindred subject, is always well received. It is hoped that the work under consideration will not be an exception. Both the theory and the practical uses of the ophthalmoscope have been clearly stated and explained.

JAMES W. INGALLS.



# BROOKLYN MEDICAL JOURNAL

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No. 8.

## THE STOMACH AS AN ETIOLOGICAL FACTOR IN DISEASE.

BY CHARLES B. BACON, M.D.

The stomach or ventriculus is a major organ, structurally, physiologically and mechanically speaking complex, and the most frequently abused of all organs. Seldom in papers or discussions of the stomach, either in health or disease do we make mention of the early investigations and careful research of Dr. Beaumont, and subsequently others upon the young Martin St. Elix, who in 1822, by the accidental discharge of a gun, received a wound of the stomach leaving a permanent opening which enabled Beaumont and others to study the processes of gastric digestion, upon which our present knowledge is largely based. The patience and kindly disposition of this young lad of eighteen years, together with the offering of himself as a subject for medical investigation, are worthy of mention.

We will not deal with the anatomic lesions of the stomach, *per se*, but on the other hand will briefly mention its importance in the etiology of diseases of other organs. It is maintained that the stomach rarely escapes undisturbed when the body or any member thereof becomes seriously diseased. This reciprocal relationship therefore becomes not only of interest but of importance. Much is speculative, more is firmly established as the result of painstaking clinical and laboratory research. This reciprocal relationship is sometimes designated as the vicious circle established between the stomach and other important organs of the body.

### HOW MAY A DISEASED STOMACH ACT AS A DISEASE PRODUCING ORGAN?

Principally through its influence on intestinal digestion and nutrition, through its disturbance of physiological chemistry and through auto-intoxication. Its influence on intestinal digestion is direct; for instance, abnormal chyme produces abnormal chylification. On other organs a diseased stomach acts either through the nervous system or through the blood. It is difficult to determine the amount of disturbance due to reflex action, also to know how far a peripheral irritation in-

volves the sympathetic and the cerebro-spinal centers and how far the chemistry of the body is altered in a particular case by a diseased stomach, still more difficult to estimate with precision the effects upon the body of an auto-intoxication.

1. INFLUENCE ON THE INTESTINES.—Enteric functions may be disturbed directly or indirectly by the harmful influence of a perverted gastric function, acting on the nervous system, liver, blood, nutrition, circulation and kidneys.

The most direct action however being on the intestines by means of reflexes originating in the stomach and conveyed by the sympathetic and pneumo-gastric nerves. A faulty gastric digestion means an additional burden upon the intestines; for instance, nitrogenous food not properly peptonized as is the case when the secretory and motor functions are insufficient; also if the saliva is too rapidly arrested in the stomach, the intestines must do more than their share upon the carbohydrates. This additional work upon the intestines will sooner or later work harm to the enteric functions and render them more likely to disease. Functional insufficiency of the intestines produced either by extra work or perverted gastric secretions and peristalsis favors intestinal fermentation and putrefaction, both hostile to intestinal health, resulting in enteric diseases.

2. INFLUENCE ON THE LIVER.—The physiologist teaches us that this is an organ of assimilation and dissimulation, a poison-destroying and digestive organ as well as a blood-destroying and quite likely a blood-making organ. All of these functions may be deranged by diseases of the stomach, products of abnormal digestion, also auto-intoxication disturb the nutritive function, poisons conveyed to it by the portal vein are rendered harmless by the liver, this kindly function may be disturbed by auto-intoxication, also by the absorption of the products of peptonization in the blood. Peptones and albumoses gaining access to the circulation without having first been transformed go as poisons. Bile exerts a beneficial action on intestinal digestion. The quantity of this secretion depends in part on the quantity and quality of food ingested, hence the chemistry of the bile may become disordered in diseases of the stomach which require a modified

diet, in the proportion of the food classes entering into this composition.

Disturbed hepatic functions may lead to chronic hepatic lesions.

3. INFLUENCE ON THE BLOOD.—Deleterious influence of stomach diseases on the blood is shown in various ways; for instance, as a result of sub-nutrition, we sometimes see the condition of inanition anemia. This inanition acts in two ways on the blood, causing an insufficiency of the hematopoietic organs, or by altering the composition of the plasma. The resisting power of the red corpuscles being lessened and the development of the white corpuscles also lessened, we may have as a result of sub-nutrition, dyshematopoietic oligo-cythemia, and this condition may be associated with hemato-cytolysis, a lessened supply and absorption of water with increased elimination may produce oligemia-sicca; gastric ulcer, carcinoma and erosions may produce by reason of hemorrhage, anemias of mild or grave type. Indeed the quantity of blood lost may exceed the quantity of blood furnished by the hematopoietic organs. In carcinoma and diseases of the stomach with inflammatory complications a leucocytosis may develop.

4. INFLUENCE ON NUTRITION.—Nearly every every disease of the stomach disturbs nutrition, acute, also chronic, diseases of the stomach disturb the processes of digestion. The most frequent disorder of these processes are excessive nitrogenous waste, uricacidemia and phosphaturia. Sub-nutrition is caused by a diseased stomach in many ways, often insufficient diet owing to loss of appetite, disgust for food, to avoid pain, as seen in ulcer, carcinoma, acute gastritis or even hysteria, or on account of some injurious plan of alimentation. Moreover some of the food may be lost by vomiting, fermentation, putrefaction, diarrhea, etc. Nutrition is more or less disturbed whenever motor or secretory insufficiency is present. In carcinoma, some cases of mycotic gastritis and auto-intoxication the nitrogenous catabolism exceeds the requirements of the blood. A diseased stomach may cause an accumulation of uric acid in the system by producing an acid auto-intoxication. This uric acid diathesis is a complex chemical condition.

Carcinoma and chronic gastritis with motor insufficiency together with myasthenia associated with lessened secretion are the most common diseases of the stomach, producing uric acid precipitation and retention. Along with uric acid diathesis mention may be made to the condition of phosphaturia; this latter condition is found in

some cases of chronic gastritis and in diseases of the stomach accompanied by superacidity or supersecretion.

5. INFLUENCE ON THE HEART AND CIRCULATION.—Under this heading let us bear in mind the close relation between the stomach and the heart, both by reason of close proximity and nerve supply—the first disturbs by reason of mechanical compression, the second by means of pathological reflexes. Normally, digestion increases both the frequency and the strength of the heart beats, strong excitation of the mucous membrane of the stomach makes the heart's action slow. Tachycardia dependent upon gastric derangement is exceedingly rare. Bradycardia of gastric origin is more common. This condition may be associated with a weak heart. Cardiac palpitation is often associated with gastric disturbance. Acute diseases of the stomach, or even the exacerbation of chronic diseases, may so disturb cardiac compensation as to deal a death blow in organic heart diseases as well as to precipitate an attack of angina pectoris.

6. INFLUENCE ON THE NERVOUS SYSTEM.—The period of normal digestion is one of rest, mental and physical. This restful state may be disturbed or even prevented by the use of stimulants, tea, coffee, etc. Pathological digestion acts adversely upon the nervous system, producing headache, insomnia, together with other symptoms referable to the nervous system too numerous to mention. The most common disturbances are neurasthenia, vertigo, tetany and epileptiform convulsions. Vertigo is a very common symptom and with this symptom conditions of the arteries and circulation besides those of the stomach should be called to mind. Tetany is a rare complication. Gastric epileptiform convulsions must be differentiated from true epilepsy with a gastric aura.

7. INFLUENCE ON THE SKIN.—The stomach through its influence on the vasomotor nerves and through the irritation produced by elimination may excite urticaria, which condition to the lay mind is due to a bad stomach. It is undoubtedly due more frequently to intestinal disturbances from anatomic lesions or the idiosyncrasy for certain forms of food. Eczema though rare is sometimes associated with gastric derangement as is also rosacea.

8. INFLUENCE ON THE KIDNEYS.—Since diseases of the stomach directly modify the composition of urine, changes may be brought about in this organ. The total quantity of urine secreted may be markedly diminished, its acidity either



lessened or increased. Its toxicity increased. The functional albuminurias are frequently closely associated with a diseased stomach, in fact it may contain gastric ferment and albumoses.

### THE SURGICAL TREATMENT OF OBSTINATE DYSPEPSIA.

BY WILLIAM FRANCIS CAMPBELL, M.D.

Brooklyn-New York.

A closer study of gastric disorders reveals the fact that the term dyspepsia has been used as a broad, elastic, comprehensive term which refers to impairment of the function of digestion. It refers to a symptom complex. It suggests no anatomical lesion, and hence no specific disease.

We are learning that alterations in the digestive secretions are not to be treated as primary symptoms, that they are secondary to some definite anatomical lesion, that the mechanism is somewhere impaired, and that only accurate, definite location of the cause will suggest the proper treatment.

The older methods of diagnosis from the subjective symptoms and the prolonged methods of treatment have been replaced by new and exact methods and prompt treatment. Only such conclusions as are based upon examinations of the gastric secretions, its size, situation, and motility, and the condition of allied organs are accepted as scientific. Just as the inefficient local treatment of pelvic disorders has been replaced by removal of diseased organs and the adjustment of faulty positions; just as the removal of the diseased appendix has removed the stigma of idiopathic peritonitis, so the internist, the pathologist, and the surgeon have by their combined efforts elucidated many of the disorders of digestion and by demonstrating the anatomical lesions back of the symptoms, suggested the remedial measures to be employed.

What has thus far been demonstrated as to the cause of chronic dyspepsia?

First—*That the anatomical lesion is not necessarily within the stomach.* It is as frequently *extra* gastric as it is *intra* gastric.

Take the ordinary train of symptoms which make up the symptom complex termed dyspepsia: distress after eating, feeling of fullness, nausea, flatulence, constipation, headache, mental depression. All these symptoms may be present, and an examination of the stomach shows that its

size, situation, secretions and motility are normal, yet this is just the train of symptoms ordinarily treated by *nux vomica*, pepsin and hydrochloric acid.

You can have all the symptoms of dyspepsia with a normal stomach. In one-half of the cases the stomach is not the cause of the dyspepsia, and it is only as we attempt to analyze the cases of chronic dyspepsia with some degree of accuracy with the idea of definitely determining the anatomical lesion which is the basis of disturbance can we hope to apply measures which will cure our patients.

Some one has said that "the pancreas, liver and ducts, and stomach hang like three apples on a single stem—the duodenum; whatever affects one, affects the others." If we would carry the simile further, and the boughs were prolific enough to bear the kidney and the appendix, the analogy would be complete. There is, however, a more accurate and satisfactory explanation of the interdependence of these important organs. They are all definitely connected and anatomically correlated through their nerve supply. From the central solar plexus go a number of subsidiary plexuses, the superior mesenteric, the renal, the celiac, and through them there is an intimate relation established among the stomach, duodenum, kidney, spleen, pancreas and appendix. Irritation in any of these organs can be reflected in the others.

The duodenum is "the central chamber of the digestive apparatus," as it is the center of diagnostic difficulty.

Into the duodenum empties the stomach, the bile duct, the pancreatic duct; behind it lies the right kidney, below it the appendix; and all are connected through their nerve supply.

Let me report a few cases to show the application of the foregoing statement:

Case A. Miss C., age 19. No history of previous disease. Four years ago had some slight attacks of epigastric pain; one of these was rather severe, and the pain radiated through to the back and right shoulder. Appetite became capricious. She could not eat sweets, fruits, nuts or pastry of any kind without a feeling of discomfort and an excessive secretion of saliva. There followed loss of flesh, constipation and some mental depression. Three years ago she had a sudden and severe attack of pain in the right iliac fossa, with great tenderness. This attack subsided and was followed by another in January, 1905, presenting the same symptoms.

Examinations showed size of stomach normal;

right kidney movable; tenderness in the right iliac fossa; appendix not palpable.

In March the appendix was removed. It showed evidence of chronic inflammation. This patient was seen a week ago. She reports that the symptoms have disappeared, and she has gained ten pounds in weight.

Case B. Mrs. D., age 29. Frail, neurotic type. Had suffered for three years from distress after eating, sometimes nausea and vomiting. There was constant flatulence and constipation. During the last six months she had frequent attacks of severe pain beginning in the epigastrium and referred to the right shoulder. No jaundice.

Examination.—The patient is badly nourished, neurotic and mentally depressed. The stomach in size, situation and secretion is normal. There is tenderness over the gall-bladder. Leucocyte count, 13,300.

Operation revealed a gall-bladder filled with a number of small stones, and in the cystic duct a stone the size of a marble. After removal of the stones, drainage was established and continued for three weeks. Patient left the hospital cured. When seen subsequently she reported that she had no return of symptoms and had gained in weight.

Case C. Miss L., age 23. Frail, neurotic type. Complains of loss of appetite—the smallest quantity of food causes feeling of fullness, distress and often nausea—headache, nausea, constipation and mental depression.

Examination of stomach shows that its situation is lower than normal, its size, secretions and motility normal. On the right side is found a floating kidney prolapsed to the second degree. There is a tendency toward general abdominal ptosis.

Patient treated with a five-tailed muslin abdominal binder, applied while lying down with the buttock raised and after the kidney has been replaced in normal position.

Patient's dyspepsia has entirely disappeared, and she has gained fifteen pounds in weight.

Here, then, are three cases all suffering from dyspepsia with normal gastric secretions, with a definite lesion in three distinct organs, the correction of which resulted in freedom from the distressing symptoms.

I recommend this simple binder as far more satisfactory than the expensive silk elastic ones, which in a short time lose their efficiency as they lose their elasticity. Note also that it is useless to apply the bandage unless the patient

is lying down and the kidney replaced in normal position. There are few operations which have been more abused than the operation for floating kidney.

Second—That the chronic lesions within the stomach which can be cured by the internist are very few. The chronic lesions of the stomach depend upon two primary causes—chronic ulcer and cancer—the more common offender being ulcer. As a result of chronic ulcer we get "hemorrhage, cicatrices, distortion, stenosis, adhesions, dilatation, ptosis, involvement of neighboring organs, the ulcer often terminating in cancer." What can the internist do for these conditions? His treatment can be summed up in two words—rest and cleanliness—rest by rectal feeding, cleanliness by means of the stomach tube. Both procedures are limited in their application. Both are unsatisfactory in permanent results.

\*Read the story of sixty cases of atonic dilatation treated in the medical wards of the Massachusetts General Hospital and the end results.

The cases are all chronic dyspeptics who had suffered for many years. "Dilatation of the stomach" was the diagnosis made. Of these sixty cases the report gives seven well, nineteen unimproved, five improved, twenty-nine dead. All these cases were put to bed, lavage of the stomach employed, restricted diet, and in some, rectal feeding instituted. Of the twenty-nine deaths, fifty per cent. died of cancer. The cause of death in the remaining fourteen is given as "starvation." These figures speak eloquently of the folly of treating symptoms rather than the primary cause of the symptoms.

Let me cite two cases of interest bearing on this point.

Case 1. Mrs. S., age 39. Consulted her physician two years ago, complaining of anorexia, fear of eating, headache, nausea, vomiting, flatulency, constipation. Pain appeared from one to two hours after eating. There were marked evidences of malnutrition and mental depression. Patient was a confirmed neurasthenic. Stomach somewhat dilated, evidences of hyperchloridria and stasis.

The following November her physician was called to attend her for gastric hemorrhage. Much blood was vomited, and she passed tarry stools. Eleven months later she was suddenly seized with severe pain, and gave evidence of active hemorrhage, as seen in the vomit and stools.



When seen by the writer she seemed almost exsanguinated. The radial pulse was scarcely perceptible. By the use of morphine, adrenalin and hypodermatoclysis the patient recovered.

These symptoms point to an ulcer either near the pylorus or in the duodenum itself. A drainage operation has been advised and is under consideration. Such a procedure will not only relieve this patient, but there is no other treatment from which relief can confidently be expected.

Case II. A woman of twenty-two, single, seen in the clinic of Dr. Bristow. Symptoms extended over a period of two months. Complained of sudden attacks of pain once or twice a day in the epigastrium, radiating to the back and shoulder. After these attacks there were nausea and vomiting. The attacks were excited by certain kinds of food. No examination of the stomach contents was made and the case was thought to be one of cholelithiasis.

At the operation the gall tract was found normal. On the anterior wall of the stomach was felt a small area of thickening. The stomach was opened and an area of erosion was discovered about the size of a five-cent piece. The eroded area was cauterized and the stomach wound closed. The patient was fed for two weeks by rectal enemata and a fluid diet gradually substituted. She recovered with no return of symptoms.

The internist treats these chronic conditions dependent on chronic ulcers by rest and cleanliness. The surgeon can permanently accomplish both of these ends by the simple operation of gastro-enterostomy and cure the patient. Furthermore, he can at the time of operation positively diagnose what the internist may vaguely surmise.

Third—If gastric symptoms are progressive, and no constitutional or local cause for them can be found, and no benefit is derived from a carefully instituted internal treatment, exploratory laparotomy is not only admissible, but obligatory. This applies to all forms of gastric disturbance, but more urgently even in patients who are beyond forty, for in all patients beyond forty who present symptoms of chronic dyspepsia, we should be suspicious of carcinoma, and our efforts should be directed to disproving its presence even by means of exploratory incision.

Krask's dictum ought ever to be in mind, viz.: "That operation for cancer of the stomach is desirable only when a tumor cannot be felt and a positive diagnosis is impossible. When a

positive diagnosis can be made a positive cure is impossible."

And finally, as we become more accurate in our methods of examination and observation, as we begin to appreciate what we already know, that chronic dyspepsias have a definite anatomical cause, these patients will be given the benefit of operation and the large class of neurasthenics and chronic dyspeptics will be rescued from chronic invalidism and restored to normal health.

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#### THE SIGNIFICANCE OF ALBUMINURIA FROM THE INSURANCE STANDPOINT.

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BY GEORGE H. PIERCE, M.D.

There is no question concerned in the physical examination of an applicant for life insurance so perplexing to the medical examiner as the one which asks, what a persistent slight cloudiness in a specimen of urine may signify in the test tube; and what importance may be attached to the acceptance of the individual in whom it is found, as an insurance risk. The question is more complex than determining a probable prognosis in a medical or surgical case. Many of you are familiar with the methods of life insurance work and understand what I mean. The agent does not understand that the trace of albumen so often found, and so often associated with low specific gravity, may indicate one of the most insidious of renal diseases—interstitial nephritis—and when the examiner does not recommend the case, his feelings toward the latter are often not the pleasantest, and it may be the last case that agent will ask him to examine. You notice that I have at the outset coupled the agent with the examiner. This must necessarily be so; for from the character of the work, the two are inseparable as far as the case is concerned; and this is one of the reasons which gives the medical part of the investigation the atmosphere of *insurance*. One cannot comprehend this unless he has had experience. The insurance agent soon becomes, to a certain extent, familiar with the methods of examination and knows what certain signs mean; and he also knows the conditions which invariably reject; but certain slight signs like the one I have mentioned or a slight heart murmur he cannot understand as indicating more than a slight ailment and the consequence is that he is often dissatisfied. The company on the other hand, while it is anxious for average good cases, prefers to take the benefit of any doubt; and so

demands that all findings shall be reported by the examiner to the medical director and that he shall decide as to their importance. I will not enter into a discussion here as to what shall and shall not be reported on the examining blank. It is assumed that the examiner will use good judgment in reporting the history of the applicant's previous and present ailments; and that everything which may have a reasonable bearing on the case shall be noted. Experienced insurance men will tell you that the reports of histories are not always satisfactory to them. In this there is one of the commonest fields for fault-finding; for the information which the examiner knows should be reported to the company, the agent too often criticizes for being reported. I have mentioned these facts in an introductory way to show the connecting link between the medical and the agent's side of the case, and in its application to the question under discussion, the insurance aspect is profoundly *sui generis*. While practical life insurance is conducted on mathematical principles which have proved themselves to be sound; while the enormous growth in assets and surplus has been continuously on the increase; and while it is logical to assume that the progressively increased care in medical selection of risks has to some extent been the means of this growth—there will from time to time crop out an expression: that not only urinalysis is unnecessary, but that if, *e. g.*, 100 men who might chance to come along the street were given policies without examination the mortality would keep at an average. Be this as it may, the history of the phenomenal growth in this line of enterprise seems to prove that the methods employed in the selection of risks have been wise methods. To accept risks without medical examination would be to go back to the earliest methods of writing life insurance; and it would be especially hazardous to-day, because of the large number of known to be unsound risks, who would rush into the companies. Previous to 1762, when the Equitable of London was founded, no medical examinations were required. The boards of directors simply looked wise, sized up the applicants, and if they thought that their pedigrees were favorable to a satisfactory longevity, to the extent that in years to come the company could in all probability make a creditable contribution to political campaign funds, they were accepted. The agents stood a much better chance in those days, and the applicant too. But something told those far-sighted and honest old directors that "death comes a-knocking at the

door" a little too often; and so some kind friend of the medical profession suggested to the Equitable, that a few of the companies' dollars be turned into the pockets of the doctors; and that as a *quid pro quo*, the doctors would do what they could to keep out undesirable risks. Up to this time the complaint of albuminuria had not become universal, chronic, or pathetic; and the doctors presumably forgot that the applicants even had kidneys. Although a physical examination was made in other respects, no urinalysis was made. But finally they saw that there was danger of the graft fund becoming impaired, (not the Equitable), and so they instituted an examination of the urine. The Equitable then (Equitable of London in 1762), instituted the first urinalysis in life insurance examinations. Here began the bane of the life insurance agent's existence. Test-tubes, nitric acid, alcohol lamps, filter paper, litmus paper, urinometers and microscopes, were brought into service. When they found albumen nobody seemed to know what it all signified and some think that we do not know much more about it to-day. They say that after applying the cold nitric acid, and heat, tests; and screwing the microscope up and down, about all we can find is a symptom of something the importance of which we cannot explain. This from the agent's standpoint. But from the company's standpoint albumen was albumen and casts were casts; something not normal; the indication of disease; a "red flag of danger"; and was cause enough to reject. All companies rejected albumen cases. The quantity of albumen did not enter into the case; the age of the individual was not considered; all albuminuria cases were rejected. This ruling was in vogue in all American companies up to within a few years ago. Finally, some of the companies began to be more liberal (in many ways) and whether to increase the volume of business; or from a mere philanthropic standpoint, to extend insurance to more of the "common people," certain companies conceived the idea of insuring applicants for what they are worth physically; and commenced to issue the *lien* policies. One of the giant companies will, so I am informed, insure anything from locomotor ataxia up; provided, enough premium is paid to cover the risk. And this is the principle into which life insurance is broadening to-day, and it devolves upon the actuaries and the medical men to fix the standard—the presidents and directors can fix the rest. It would seemingly be interesting to have an actuary describe the methods by which the rates are worked out;



but it is so intricate a problem that none of us would be the wiser if we listened to the scheme. I suppose the question which the society wished to be discussed here this evening, is not what significance the presence of albuminuria may have upon longevity—for that is a medical problem—but the question as to how an insurance company regards the presence of albumen in a given case in its bearing upon the rate of premium at which they could safely assume that risk. Practically the premises are the same in both up to a certain point. From the insurance standpoint it is the same as the other, viz.: trying to determine how long an individual will live plus the additional problem of fixing a rate so that the premature deaths from albuminuric conditions shall not impair the general mortality figures. The conclusions may be summarized something like this: The majority of companies will not accept cases of persistent albuminuria under any circumstances. They will make repeated examinations of the urine, and if it can be proved that the condition at the time of examination was a temporary one they will issue the policy provided albumen does not appear in the other tests. Other companies have in recent years been writing policies upon lives which contain albumen; but at an advanced rate of premium. There are two propositions pertinent to the question of the relationship of albumen to life insurance. One—What constitutes albuminuria? *e. g.*, What do the various opacities which we daily find while making the test for albumen signify—what are they? Are they serum albumen or some of the other precipitates which have been mentioned by the former speakers, viz., nucleo-albumen, mucin, oxalate of lime—are these various precipitates of vital importance from the insurance standpoint? And, two—Will insurance companies write policies on the lives of applicants who have these opacities in the urine? Taking up the first proposition, as to what do the various opacities which we find signify: When an insurance company asks the question, Is albumen present in the specimen? it would seem at first to any medical man to be a very simple question; but as you have heard discussed in the other papers, there is room for doubt many times when the opacity is a slight one. In a business where a report of the finding of the examiner for one company is considered absolute; and not only of that company, but where the report is, if unfavorable, sent to all the other old line insurance companies; it is unfortunate that there is no *standard test*. Some companies simply

ask if albumen is present; one company asks upon its blank the question: What do you find upon boiling after adding acetic acid? Another company gives the instruction as to how to apply Heller's cold nitric acid test. Now, there are many tests for albumen, and some are very delicate in producing a slight cloud. They will surely cause albumen to appear if it is present, but I believe they will often cause other clouds, and if the decision of one company, as to the presence or absence of albumen, is to rest upon the presence or absence of this slight cloud which only the finer tests will show, they should be the standard tests for all companies. Of the finer tests, I refer to those containing acetic acid. On the other hand, if some old line companies with excellent records adhere to the nitric acid tests, it would be more uniform if all would use the same. It has been shown that there are imperfect proteid oxidation products and disturbances of tissue metabolism apart from organic changes, which give evidence of their presence in the urine; and it seems reasonable to me that some of these slight opacities which the finer tests for albumen give, are due to these products, and not to serum albumen. On the other hand, it may be that these products are the forerunners of organic changes and are of importance. Prof. William H. Porter has recently shown that indican and uric acid in an amount that is in excess of the normal quantity, and oxalic acid as expressed by the oxalates, are danger signals in the urine. For this reason it would seem that it would be wise to recognize their danger in considering insurance risks. But here the principle of life insurance which provides for all contingences through the law of average, has proven that it is not necessary to make the investigations more searching. The insurance field is something like that of religion. Its statistics are based upon risks selected from all parts of the world; and the medical examinations are made according to the methods of myriads of examiners, each following his own method; and the outcome of the selection has been that the companies are growing immeasurably larger year by year, so that it does not seem as if the medical examinations required to be ultra critical.

Proposition Two—Can insurance companies safely write policies on the lives of applicants whose urine contains albumen? Life insurance is probably the largest financial business in the world from the standpoint of money and the people whom it affects. The number of rejec-

tions by the companies on account of albuminuria is greater than the rejections from any other cause. This paper is not a plea for a remedy for these rejections; the watchword of life insurance is *safety*, and the methods change slowly; the medical and actuarial decisions are based respectively upon history and mathematics. The same causes of disease exist to-day that existed when life insurance commenced to be written. Progress has consisted in finding causes. There has, however, been in recent years a tendency in life insurance toward broadening and liberality in writing policies. The English companies always wrote lien policies; it is new for American companies to do so; but one after another they are falling into line, in this respect, viz., in insuring a man for what he is worth physically, by fixing the rate of premium to suit the case; and as to an answer to our question as to whether insurance companies can or will write policies on applicants who give or have previously given a history of albuminuria, I will state that some companies do issue policies in these cases on special forms and at special rates. The reasons for doing so are based upon the following views held by the medical profession: There are conditions of albuminuria which are due to organic changes; on the other hand, albuminuria may exist from functional causes. Such causes are the eruptive fevers, especially scarlet fever; the various infections, emotional and neurotic disturbances; cold bathing, violent exercise, excessive amount of nitrogenous food, dyspepsia, cyclic albuminuria (occurring on different days or portions of days), the albuminuria of adolescence, paroxysmal albuminuria, etc. I have known the drinking of champagne to produce sudden but temporary albuminuria. "A large proportion of these cases get well," says Dr. Osler, "after the condition has persisted for a variable time. This is evidence that the change was transient or slight. On the other hand, in many of the diatheses the disturbed metabolism produces high tension in the arteries (probably as a direct consequence of interference with the capillary circulation); and ultimately degeneration in various tissues, particularly the scleroses."

I quote further conclusions from Dr. Osler: "In the interests of the company, we should reject *all* cases in which albumen occurs in the urine, in the young and old." (This, as Prof. Charles Lyman Greene states, applies only to *ordinary life cases*.)

"With reference to the significance of albuminuria in adults I quite agree with the conclusions of F. C. Shattuck (says Dr. Osler):

"(1) Renal albuminuria, as proved by the presence of both albumen and casts, is much more common in adults, quite apart from Bright's disease or any obvious source of renal irritation, than is generally supposed.

"(2) The frequency increases steadily and progressively with advancing age.

"(3) This increase with age suggests the explanation, that the albuminuria is often an indication of senile degeneration.

"Though it cannot be regarded yet as absolutely proved, it is highly probable that faint traces of albumen and hyaline and finely granular casts of small diameter are often, especially in those past fifty years of age, of little or no practical importance. The uric acid diathesis may lead to gout, with uric acid deposits in the joints, acute inflammations and arterial and renal disease. The disturbed metabolism produces changes in the capillaries and capillary circulation, bringing on arterio-capillary fibrosis, and its consequent chronic interstitial nephritis.

"An occasional trace of albumen in men over forty, with or without a few hyaline casts, and with increased tension and thickened blood-vessels, usually indicates changes in the kidneys.

"The persistence of a slight amount of albumen in young men without increased arterial tension is less serious, as when even continuing for years, it may disappear.

"In chronic interstitial nephritis albumen is often absent or transient—even when the disease is well developed."

"After the fortieth year, from the standpoint of life insurance, the state of the arteries is far more important than the condition of the urine."

In conclusion we may state that medical selection in life insurance as it is written to-day is in accordance with twentieth century, conservative progress. The idea of accepting only average good risks, as adopted by the first American companies, is still adhered to by the majority of old line companies. But one by one, through the knowledge gained by statistics, covering a period of more than half a century, and by the aid of actuarial computations based upon careful medical examinations and advice; companies are commencing to issue policies on substandard lives, by fixing special premiums; and it is by this process that applicants with albuminuria are able to be accepted, after repeated chemical and microscopical examinations of the urine have been made to afford sufficient knowledge of the cases.



## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, JUNE 19, 1906.

The President, W. F. Campbell, M.D., in the Chair.

There were about one hundred members present.

The meeting was called to order, and the minutes of the previous meeting read and approved.

### REPORT OF COUNCIL.

The Council reported favorably upon the following applications for membership:

Simon R. Blatteis, 596 Willoughby Avenue.  
William B. Meister, 186 Washington Avenue.

### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

Charles Bromberg, Bushwick Hospital.  
John B. Byrne, Jr., 216 Sixth Avenue.  
William F. Ganster, 26 Berkeley Place.  
William G. Hirsemann, 408 Clinton Street.  
Gerard Kasper, 426 Evergreen Avenue.  
Frederick H. MacCarthy, 410 Clinton Street.  
Thomas H. McKinnon, 600 Leonard Street.  
Samuel Schwartzman, 332 Stone Avenue.  
Joseph W. Stevens, 835 Hancock Street.  
Alec N. Thomson, 1309 Bedford Avenue.  
Joseph Weinberg, 482 Quincy Street.

### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

John F. Dorian, 333 Jefferson Avenue, Vanderbilt Medical College, 1889.

Proposed by C. G. Crane, seconded by Membership Committee.

John Christian Germann, 145 Norman Avenue, University of New York, 1893.

Proposed by R. S. Fowler, seconded by Membership Committee.

William A. Moulton, 1345 56th Street, N. Y. University, 1897.

Proposed by J. W. Malone, seconded by W. F. Dudley.

William R. Pettit, 1325 East 37th Street, L. I. C. H., 1899.

Proposed by B. D. Harrington, seconded by W. F. Dudley.

John W. Van Deusen, 982 Bedford Avenue, N. Y. University, 1884.

Proposed by J. R. Kevin, seconded by Membership Committee.

Leroy Powell Van Winkle, 1032 Bergen Street, L. I. C. H., 1903.

Proposed by W. F. Campbell, seconded by Membership Committee.

### SCIENTIFIC SESSION.

PAPER: SOME RHEUMATISMS: THEIR HISTORICAL,  
CLINICAL AND BACTERIOLOGICAL  
CONSIDERATION.

BY JAMES J. WALSH, M.D., OF NEW YORK CITY.

It was moved and seconded that a vote of thanks be tendered to Dr. Walsh for his admirable and very instructive paper. Seconded and carried. Adjourned.

JOHN A. LEE, *Secretary*.

## THE BROOKLYN PATHOLOGICAL SOCIETY.

CLAUDE G. CRANE, M.D., Editor.

467TH REGULAR MEETING, APRIL 12, 1906.

The President, H. G. Webster, M.D., in the Chair.

SUBJECT: THE SIGNIFICANCE OF ALBUMINURIA:  
IN SURGERY, DR. JAMES P. WARBASSE.

IN LIFE INSURANCE, DR. GEORGE H. PIERCE.

THE SIGNIFICANCE OF ALBUMINURIA IN SURGERY,  
DR. J. P. WARBASSE.\*

This subject is so large a one and the time allotted to me for discussion so short, that I shall touch upon but a few salient points in the surgical aspect of albuminuria. Of course, in surgical conditions, we have to do with albumen in the urine coming chiefly from blood, and that associated with pus. These, however, cannot properly be classified in the albumen producing conditions of this discussion; for, as I understand it, we are to discuss the albumen originating in disease of the kidneys.

If I might say a word upon the albumen from blood, in the urine, that would involve us in the discussion of hæmaturia, with which we shall not deal. The albumen which is found

\* Discussion before the Brooklyn Pathological Society April 12, 1906.

associated with suppurative conditions of the urinary tract is one of the commonest of surgical sources of albumen, and there are a few points in this connection which I should like to make. In the first place, it is very difficult, when we have pus in the urine, to determine just how much albumen of kidney origin may be present, as it has not originated from the same source as that with the pus cells. It is difficult to determine just how much may come from the lesion of the kidney itself, and which would be present were there no suppurative conditions. The urologists differentiate this by filtering out the pus cells and determining the amount of albumen, and calculating the proportion of albumen and the proportion of pus cells. We find always a certain amount of albumen in suppurative conditions, which comes partly from disintegrated pus cells and partly from the serum which is poured out in connection with the inflammatory condition that is producing the pus. In cystitis, for example, there may be a moderate degree of pus and a very large amount of albumen, some of the albumen coming from the cystitis and some from a concomitant nephritis. Sometimes we find a persistent cystitis showing always a small amount of pus and albumen. Kelly has called attention to such a condition, a persistent cystitis with a small amount of pus and a trace of albumen, which is intractable to the ordinary methods of treatment. If the urine of these cases is persistently acid and a small amount of albumen and pus persists, he has determined that these cases are almost invariably tubercular—a point which a large clinical experience has borne out.

When we consider the surgical inflammations of the urinary tract which creep up from below—infections of the urethra, of the bladder, of the ureters, and of the kidneys—we have conditions which always give a certain amount of albumen with pus cells. If we make repeated examinations there may come a time when we find that the amount of albumen is increasing over the percentage of pus cells, and this is the time when we may know that an inflammatory condition of the kidney of an infective origin, from an infective pyelitis, has become engrafted upon what was previously a simple infection of the urinary tract below the tubules of the kidney. This should warn us—and a very important condition it is—in persistent cases of urinary supuration to estimate the albumen, so long as that case remains an uncured case, in order that we may determine when a nephritis has become

engrafted upon the surgical condition, and when the condition has assumed a much more serious aspect on that account.

The surgical side of albuminuria is very important in regard to operative procedures. When general anesthesia first came into use a patient was regarded as safe and a triumph of general anesthesia was recorded when the patient left the table alive. Gradually, however, statistics developed the knowledge that there were inherent dangers in the anesthetic itself; and damaged kidneys were reported following operations, until a vast amount of clinical experience and data were compiled, which warned us of the dangers of general anesthetics, particularly ether and chloroform. However, in recent years we have gone further than this; and we have come to realize that a small amount of albumen appearing in the urine after operation may not necessarily be attributed to the irritation of ether. It is not necessarily due to the damaging effect of these anesthetics upon the emunctory epithelial cells, for in my own personal observation I have encountered a number of cases, in which albumen has appeared in the urine after operation, in cases in which neither ether nor chloroform was used. This I have observed in the cases of spinal anesthetization during the year or two when that method of anesthetic was in vogue; and many of us have seen albumen appear in the urine after simple operations with local anesthetics. That brings us to the consideration of nervous tension or stress or shock in its relation to the presence of albumen in the urine.

We are all familiar with the cases of fracture, in which, in a man past middle life, albumen appears for the first time in the urine, associated with casts and evidences of kidney degeneration. We are familiar with cases in which operative procedures are practiced upon the urinary tract, such as the passage of sounds, the division of strictures, and perineal cystotomy, without a general anesthetic, without the irritation of ether, in which albumen appears in the urine. The real cause of this appearance of albumen in the urine is still a matter of question. I believe one may say that nervous irritation is responsible for this condition. There is a depressing effect in these conditions upon the trophic centers, thereby affecting metabolism, and thereby interfering with the proper function of the parenchymatous cells of emunctory organs. I believe that there is a very close relation between the albuminuria which appears in shock following fractures or



any profound depression of the nervous system and the albuminuria of what the neurologists call stress. This is the albuminuria which occurs in people who have great responsibilities and worry and nervous strain—the albuminuria of crowned heads, if you please.

These two conditions go back to irritation of the nervous system affecting directly the trophic centers, and affecting secondarily the functioning epithelium of the glandular organs, not alone of the kidneys but of the other organs which have to do with the elimination of toxic materials and with the production of protective products. All of these conditions make us cautious in proceeding surgically where there are evidences of damaged kidneys. There is, however, a final class of cases, to which I should like to call your attention, in which after a long continued suppurative process we see kidney disease develop. In the cases of chronic bone disease, chronic osteomyelitis, which have existed for a long time, possibly with sinuses which have not healed, we sometimes see in the urine, which has been examined from day to day, albumen appear—a small amount at first and then gradually increasing. Here we encounter a condition which the pathologists recognize as amyloid degeneration of the kidney, which is associated with suppurative processes; and here we have a condition which should prompt operation rather than contraindicate operation. When a bone disease under temporizing measures, with a hope of effecting a cure, has gone on and on until a trace of albumen is discovered in the urine, then a time has come when it is incumbent upon the surgeon to act immediately and eradicate by radical measures the local disease which is inflicting this continuous damage upon the kidneys; and so I close with the thought that there is not only albuminuria which contraindicates operation, but there is also albuminuria which indicates operation.

Dr. A. F. ERDMANN inquired of Dr. Webster as to cases he had observed in which albumen and casts were present before operation, in which they disappeared after operation.

Dr. H. G. WEBSTER had no recollection of the particular cases as to what they were. He did recollect that the percentage of albumen appearing in the urine after operation was just as large with chloroform as with ether, and it was his impression that almost all of these cases that were operated on where the albumen disappeared after the operation were acute surgical cases of the sort Dr. Warbasse had spoken of, either sup-

purative or so much run down from long continued chronic disease, that it was possible the relief from the systemic intoxication, rather than anything else, would account for that condition.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, FEBRUARY 1, 1906.

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DR. W. B. BRINSMADE in the Chair.

### INCISION OF BLADDER IN HERNIA OPERATION.

DR. WM. MADDREN presented a man who had had a large scrotal hernia on the right side which was reducible. He had worn a truss. At the operation for radical cure, on incising the tissues of the hernia, the speaker found them matted together, and in his efforts to separate them he opened into the bladder. It was the largest opening into the bladder that he had ever had the misfortune to see. It was a stellate tear, and he sewed it up. A sound was passed through the urethra to make sure that the bladder had been entered. There were five different directions in the tear. The edges of the mucous membrane were trimmed off, and the different tears sewed up, turning in a little of the other tissue. Then a purse-string suture was put in at the apex of the stellate portions, tightened up and the hernial sac removed. A catheter was tied in for twenty-four hours, and the urine was drawn afterward. He made a good recovery and has had no bladder symptoms since. He has had a slight recurrence of the hernia, but he has been doing heavy work, lifting pianos, etc.

### SECONDARY OPERATION FOR GALL-STONES.

DR. WM. MADDREN reported the case of a steam fitter, 51 years of age. Fourteen years ago he weighed 237 pounds and had indulged freely in alcoholic stimulants. At that time he had an attack of pain in the gall-bladder, which was severe enough to cause him to fall in a faint on the floor. He became markedly jaundiced. He was sick in bed for two months, remained in doors for five months, and was jaundiced for a year. He had slight attacks of pain for a number of years, and always in the region of the gall-bladder. The area of pain was as big as a silver dollar, but when severe would radiate in all directions. The attacks occurred every five or six months, and were always accompanied by jaundice. During the past four or five months the attacks were more severe, requiring morphine.

He was admitted to the Kings County Hospital in November, 1904. He was operated on the same day by Dr. Bogart, who removed twelve or more stones; and the operator was unable to search further owing to his poor condition at the time. He was discharged six weeks later, and then had a return of pain in the back and spine. This was the worst attack of pain he had ever had. He was admitted to the Kings County Hospital the latter part of April and operated on four days later.

The primary operation was a direct incision, and the second operation was an oblique one, beginning in the median line and extending pretty well down. The tissues were matted together as a result of the previous operation and the preoperative conditions. There was considerable hemorrhage, and the speaker said that he had to feel his way cautiously by dissection, and a good deal of separation was done by the finger. He located a gall-stone in the common duct within about three-quarter inch of the duodenum. After a good deal of trouble he succeeded in reaching it, and partly by the finger and partly by the handle of the scalpel he was able to get through the duct wall and get out a small stone. A rubber drainage tube, surrounded by gauze, was introduced down to the common duct. He made no attempt to stitch the duct. The tissues were sewed together as far as possible; and in less than four weeks the patient returned home with the sinus closed.

#### VOLVULUS IN A CHILD.

DR. JOHN A. LEE reported a case with the following history:

On the night of the 19th of June, 1905, a child, aged four years, was brought into St. Mary's Hospital in the ambulance and placed on the service of Dr. Charles E. Terry, through whose kindness the reporter was permitted to assume charge of the case. Two days previously the patient began to suffer from pain in the abdomen and vomiting. For one day before he had not been well. On the 19th vomiting became stercoraceous, obstipation absolute.

On admission the patient was in a condition of collapse; abdomen generally distended painful and tender; pulse rapid and theracly. High eneuca was without result; operation within an hour.

Upon opening the abdomen the cause of the obstruction was found to be a volvulus, involving the ileum and extending to within four inches of the cæcum about eighteen inches of the ileum

was gangrenous. The bowel was twisted about its mesentery and attempts at reduction were unsuccessful. The gangrenous section was resumed and the ends joined by through and through suture of the intestinal coats. The distended bowel with difficulty was replaced in the abdomen and the wound closed. From the first the patient's condition was very bad, but during operation he responded to intravenous injections of salt solutions. This rally was only temporary and the patient died in a few hours after returning to the ward.

The points in this case that seem to make it worthy to reprint are the acute obstruction, and age of the patient—volvulus occurring usually, generally later in life. Volvulus is deemed axial rotation, with mesentery longer and thinner than normal. The position of the volvulus in 87 per cent. of cases occurs in the large intestine.

#### THROMBOSIS OF MESENTERIC VEINS.

DR. JOHN A. LEE reported the history of a case of a laborer, fifty years old, well developed and in good physical condition, who was admitted to St. Mary's Hospital with the services of Dr. Terry, on December 9, 1905. The patient walked in, and did not seem extremely ill. This history was elicited: During the previous week he had some colicky pains in the abdomen and constipation. He worked up to ten days; before entrance. At that time the pain became more severe and vomiting was pronounced. He was treated at home by a physician, and bowels moved by cathartics and anemias. Pain and vomiting continued, and the day before admission neither gas nor feces escaped from the bowel. Entered hospital next day at 1.30 P. M., was seen at 2.30 P. M. He was found vomiting dark brown material at intervals. Temperature by mouth and rectum normal, pulse 88, abdomen a little distended and tender; rigidity slight. Some pain over gall-bladder, and over rectus muscle. Right iliac fossa free from pain. Immediately operation was performed by the speaker.

Incision over gall-bladder large enough to admit hand. Gall-bladder, liver, stomach and pylorus and duodenum not diseased. Hand swept down over intestines, discovered a coil of intestines to the left of cæcum, found dilated and infiltrated, and mesentery thickened and infiltrated. The mass felt not unlike a carcinomatous condition. The upper wound was closed. Opening under the site of tumor, and offending



coil brought into view. The intestines at this point were infiltrated, dark, with spots of gangrene and hemorrhagic areas in the torsal wall. There was no intestinal current, nor could the operator pass the intestinal contents through, although there was no evidence of complete occlusion. The mesentery presented the most unusual features. The mesenteric veins were filled with clotted blood. Resection of gangrenous area of bowel with Murphy's button rapidly performed. In incising the mesentery there was little hemorrhage, but large masses of clots could be squeezed out of the mesenteric veins.

The patient left the table in fair shape, but died in twelve hours from shock.

Unfortunately, an autopsy was not obtained, but it was evident that the thrombotic area did not extend beyond the joints of resection, and there was no demonstrable cause for this localized thrombus.

Thrombosis of the mesenteric veins is a comparatively rare condition. According to Nothnagel's Encyclopedia of Practical Medicine, Walsh has been able to collect thirty-two cases. There was usually in those cases involvement of the superior mesenteric veins, and oftentimes this condition is a resultant of pyloric thrombosis, or thrombosis of the portal vein. In this case the condition evidently started at the other end and was plainly localized.

Diarrhea and intestinal hemorrhage are usually present, but here there were only the cardinal signs of intestinal obstruction. According to the International Text-book of Surgery, only two cases of intestinal resection in this condition have been reported. Frank resected sixteen inches with death in two days. Elliot resected forty-eight inches, and the open ends of the intestines were sutured to the abdominal wound. Seventeen days later the ends of the bowel were stitched together; a small fistula resulted which was successfully closed a few months later. In the speaker's own case he resected about twenty-four inches and if he had followed Elliot's procedure the result might have been different.

#### LONG ISLAND MEDICAL SOCIETY.

The 147th meeting of the Long Island Medical Society was called to order May 1, 1906, by the President, Dr. E. E. Cornwall.

THE STOMACH AND ITS RELATION TO OTHER DISEASES. BY DR. C. B. BACON.

THE SURGERY OF CHRONIC DYSPEPSIAS. BY DR. W. F. CAMPBELL.

ASSOCIATED STOMACH AND GYNECOLOGICAL LESIONS. BY DR. CLARENCE R. HYDE.

THE STOMACH IN PREGNANCY. BY DR. JAMES WATT.

#### Discussion.

DR. A. E. GALLANT. I have placed before you several charts for the classification of so-called movable or ectopic kidney. We have to deal with three forms—floating, movable and fixed. I think that if writers would be more exact in their use of the term we should be able to understand one another better. It is the fashion now to attribute to the kidney things it does not produce, and that list is one I think worth while for you to consider. A movable kidney produces three symptoms usually—hydronephrosis, jaundice, and hæmaturia occasionally.

Under the head of Gastro-intestinal tract, the symptoms are much more detrimental to the patient's welfare. In the diagnosis of dilated stomach associated with prolapse of other organs, my investigations have been along the line of abdominal contour. Under the letter "A" you will see the normal abdominal line; "B" represents abdominal distention in a woman without clothing; "C" when she ties the waist band, and "D" when she lies down. The bulging at "Z" is in contrast with "B" and "C." My plan is to place the patient on the back with the hips raised, and in that position I apply the binder. One point I wish to mention and that is the non-adherent dilated stomach. I have observed in several cases of dilated stomach that some one of the organs—the colon, omentum or intestine—was adherent, and until this was broken up we would be unable to properly replace the stomach. With a woman in the semi-opisthotonos position, the stomach will go back if it is non-adherent. We determine this by stripping the patient and we can then see that the outline is well marked. Bulging is seen and a flattening above the umbilicus is also visible. The stomach in these cases is below the umbilicus. As we look at the patient we notice that the peristalsis takes place running from one side to the other. There is also a respiratory movement, and the stomach goes up and down as she breathes. It will not go up and down to the same extent if it is adherent. My experience has been, and I know Kemp has confirmed that statement, that the outline can be approximately measured. Percussion is to be looked upon with suspicion. Succussion is easily elicited and will be of some value. The

most marked symptoms are the chronicity of these conditions. The average case will have periods of rest, but those with an adherent stomach have no relief. The treatment, of course, is purely surgical and as soon as the stomach is released from its adherence it contracts above the diaphragm. If it does not contract we must do gastro-enterostomy and get drainage. After this operation patients occasionally die. It is not a simple, though it is not a difficult, operation to perform. The posterior gastro-enterostomy seems to be the most successful when we make the oblique incision. I also wish to say a word about Dr. Campbell's binder. One patient of mine who had been to several European countries and in the hands of at least twelve physicians, came to me, and she said she was wearing a binder, and between her binder holding her up and her corset and clothing pulling her down, she was between the devil and the deep sea. As long as she wears her clothes tight, binders will not accomplish what we wish them to in the way of supporting a dilated stomach. We must look out for two things, and we must have something that will absolutely flatten the area below the umbilicus. If you place anything above that with constricts, she will become deadly sick. We must therefore allow plenty of room above the umbilicus. The average corset is made on the other plan. It is made to fit snugly up and loose below and allows everything to prolapse. The only way I find of overcoming that point has been to modify the corset so that there is ample room above the umbilicus. The corset makers have had hard work to design such a corset, still the relief to the patient is enormous. I have a patient in my home who, if her corset does not fit, within twenty-four hours is compelled to go to bed. As it loosens I can tell by the change in the woman's temperament. This has been going on for twelve years, and she was a chronic invalid until I thought this out. When the corset fits she is happy, when it does not, she is unhappy.

DR. E. E. CORNWELL. The time is soon coming when all doctors will have to be surgeons. I do believe that when we have a catarrhal condition in the stomach and find no surgical lesion, we are justified in washing out the stomach and nothing else. People have gotten well with proper medical and hygienic treatment.

DR. P. C. JAMESON. From the eye standpoint, there is no symptom in the eye that will point to a reflex in the stomach. Frequently, however, when refraction is cured, they get relief.

The correction of the eye symptom is a coincidence. Elimination by refraction and if it cures the gastric reflex, we are right in concluding that the eye was at fault, otherwise we should look somewhere else.

DR. L. MCCLELLAND. I have a little catarrh and jaundice, and calomel has done as much for me for its relief as anything else. I know that 10 grains of calomel and an equal dose of jalap have relieved me of intestinal duodenal catarrh. Personally, if I was in general medicine, I would take issue. I want to say that Dr. Lutz has seen in his experience as I have seen, that certain catarrhal conditions have resulted from pus in the sinus, and operation on the sinus has relieved it. There are troubles referable to the stomach which are not to be cured by gastro-enterostomy.

DR. W. E. BUTLER. I do most decidedly agree that a large number are due to surgical lesions, to troubles in the appendix. Even when tenderness is absent we find certain catarrhal symptoms, and by the removal of the appendix they have been relieved entirely. I also believe that Dr. Campbell and Dr. Gallant did not mean to state that there were no conditions distinctly medical. These cases may be cleared up by doses of calomel and jalap, though I am a little skeptical as to the amount, as it is a rather large dose. As far as the lesions of the genital organs of the female are concerned, we have perhaps a great many cases of retroversion where they cause no symptoms at all. In the majority of these cases where we have a retroversion pressing on the ovaries, we have these reflexes in the stomach. It is shown again and again by pressure on the ovaries you have a feeling of nausea. In regard to the belts and corset of Dr. Gallant, I have had the same experiences. Where the proper kind of corset is worn, it will change the patient's temperament. The whole lower abdomen is pressed flat and the upper portion is left free by the health corset. The waist band must be loose. I use this in cases of ectopic kidney or in cases where there is an enteroptosis that will bring it up against the diaphragm and relieve the patient. The position of the patient is rational. The reason we do not get some better results is that the doctors do not take the pains of advising patients to put on the binder or corset in the semi-opisthotonos position.

DR. B. B. MOSHER. This corset question interests me. It is certain that women vary and that a corset that fits one will not fit another as well. The figures of the women change according to the styles that are being worn. Not many



years ago we had a flanged corset, then came the straight front, and then it was flanged above and straight down below. We now have pressure on the lower abdomen and over the stomach. The pelvic obliquity has a good deal to do with displaced organs. If she has her knees bent she is more prone to displaced organs than the woman who is straight, and she will not get as good a result from a straight front corset.

DR. S. H. LUTZ. I thought I was going to offer a solution to this problem. After the general practitioner gets through with the patient, would it not be a good idea to pass the patient along to the eye man, then the nose and throat men and then the general surgeon, and if that did not do anything, the gynecologist could fix her up. The only trouble is that Drs. Gallant and Campbell had the idea that every patient had to be operated upon. They simply wanted to point out some of the reasons for chronic dyspepsia. The careful man who goes over his patient ought to be able to appreciate some of the other reasons that might make trouble in the stomach. Personally I don't keep up in general medicine and surgery, but it struck me that there were a lot of things about stomachs I had never heard of before.

DR. C. B. BACON. It is interesting and it is a fact that the anatomic lesions referable to the stomach have been studied from the earliest time and will continue so. As to the question of the mortality rate, Alexis St. Martin lived to be 84 years, although he was experimented upon for years. I would like to ask the etiology of ulcer. I am aware the pyloric area is spoken of as the energetic portion of the stomach. We find ulcer referable to any part of the mucosa. What is the most rational explanation?

DR. W. F. CAMPBELL. The cause of ulcer of the stomach is a moot question and no particular rational theory has been solved. We do not know its cause. There is no quarter between the general practitioner and the surgeon. The President's and Dr. McClelland's remarks simply failed to discuss the point at issue. We are talking of chronic dyspepsia where the patient becomes a chronic invalid. To those who have an anatomic lesion it is futile to apply medical means.

DR. E. E. CORNWALL. A lady 80 years old had dyspepsia all her life. She bids fair to die of old age. She has no surgical lesion whatever. She is of a marked neurotic type. Hers is simply a functional disorder of the stomach, but there may be some outside cause. That variety has not been touched upon. A general neurosis can localize itself. It seems to me that we should consider

errors of diet and a strenuous city life as among the causes of a vast number of dyspepsias.

DR. A. E. GALLANT. My remarks were intended to bring before you a side of the question. I would like to substantiate the remarks of Dr. Hyde as to gynecological causes which affect the stomach. Dilatation of the cervix and lifting up a retroverted uterus remedy them. A careful gynecologist will find the colon in the *cul de sac* feeling like a bunch of worms. As to the treatment surgically of these cases, I have maintained that 95 per cent. were not surgical cases. Although a surgeon I am opposed to surgery in a large percentage of cases. We take all the outer coats from all the food we eat and we minimize the excreta. If you would give your patients bran, one to two tablespoons at night in water, it will give them a comfortable stool next day. I give it to men and women. I am one of the firmest believers in the stomach tube. Having had a class associated with Dr. Gould, I have been much interested in his biological study of eminent men who have suffered from eye strain. I never allow a patient to leave my office without testing the eyes and, if necessary, I prescribe glasses. As to the straight front corset, I think it a humbug, for, while apparently supporting, it is loose. If you try it on yourself you will find that all you lift up is fat on the outside. You cannot lift the muscles or anything else. As to the change in styles, it is immaterial as to what style is worn, because the corset I have devised can be changed to suit the styles. In the examination of the patient, if you will adopt this suggestion, you will find that there are many more stomachs that are down than you realize. The woman stands up all the time. Undress the woman and examine her lying down, and the organs go back where they belong, and then we examine her standing. I take a piece of bandage and tie it round her waist the same size as her belt, or I take her belt and fasten it around her. You will then see the real position of her stomach when she is dressed.

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Three cases showing pronounced meningeal symptoms were reported by Grossman in *Arch. f. Ohrenheil* and abstracted in *Laryngoscope*. Lumbar puncture was employed in all. In the first the fluid obtained contained pus cells and diplococci, but the patient recovered. In the second a case of acute infection from the ear which for a long time had been suppurating, the fluid contained pus cells but no bacteria. The autopsy showed death due to sepsis, no meningitis.

# Brooklyn Medical Journal.

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## WOOD ALCOHOL POISONING IN BROOKLYN.

Again deaths have occurred from drinking wood alcohol. The occasional coming to light of evidence showing the use of wood alcohol by liquor sellers in concocting "mixed" drinks is frequent enough to warrant the belief that its use for this purpose is not at all uncommon.

Used in the manner indicated, wood alcohol is ordinarily sufficiently diluted to produce only an exaggeration of the common effects of inferior grades of certain other distilled liquors. Rarely it happens that sufficient wood alcohol is thus consumed at one time to produce death. Still more rarely does it happen that sufficient is consumed by more than one member of the same party to cause plural deaths and severe illnesses. In the recent case of poisoning from wood alcohol, had but a single death occurred no special investigation might have been directed to the ingredients of the "mixed" drink of which the several members of the party had partaken.

It is quite probable that quite a number of isolated fatalities occur from the dispensing of liquors in which wood alcohol is freely used. When more than the ordinarily depressing symptoms accompany the recuperation from alcoholic excesses, the physician may well inquire minutely as to where the liquors used were purchased. There is at present no ordinance allowing the Health Department to examine the stock of retail liquor dealers, nor is there any appropriation made to the department for such purpose. All evidences of a considerable dispensing of wood

alcohol in "mixed" liquors must be gathered by physicians called to attend those ill from the effects of the poison. Credit is to be bestowed upon the physicians in the recent cases that the causes of the illness was promptly recognized and reported. The milder degrees of wood alcohol poisoning might be easily made light of or confused with the symptoms following ordinary alcoholic intoxication.

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## THE UNCLEAN STREETS OF GREATER NEW YORK.

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The JOURNAL has been able to congratulate the Commissioners of the Street Cleaning Department on more than one occasion. It is with the greater reluctance that we note a distinct deterioration in the condition of the streets of Brooklyn of late. The hand sprinklers are used with decreasing frequency. The main thoroughfares of both this borough and that of Manhattan present a condition of uncleanness which one hesitates to characterize in adjectives. Carelessness or inefficiency or both are exemplified by the state of the majority of the streets to which there are some exceptions. Possibly there may be conditions of which we have no knowledge which make the present bad state of the streets justifiable. Their present condition is exciting general condemnation and needs remedying.

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## REMARKS MADE IN PRESENTING THE FOWLER MEMORIAL TABLET IN THE LIBRARY BUILD- ING OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS, N. Y., MAY 27, 1906.

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BY LEWIS STEPHEN PILCHER, M.D.

The remembrance of the tragedy of last February still remains fresh in the minds of many men. For thirty-five years a generous and enthusiastic soul had been demonstrating to his fellows the possibilities of growth and of achievement in a noble calling, a useful and engrossing art, and an abstruse and complex science. After years of effort, of unrelenting toil, of intense devotion to a high ideal, of energy rarely equalled, he had overcome every obstacle, had arrived in the maturity of his powers at the consummation of all that he had planned to achieve, was filling positions of great importance and rare usefulness to the public. He had added much to knowledge, and had contributed materially to the relief of suffering and the prolongation of life to many; arrived at a lofty and enviable summit of professional reputation, there rightly and justly stretched before him an ex-



pectation of many years more of influence and usefulness, when he should reap what he had sown, when he should wear the laurels which he had won.

Full of life and vigor, the incarnation of energy and enthusiasm, he went out from our midst. A few brief days, and there was brought back to us only the inanimate shell which had encased his indomitable soul; the man was gone, never to return. His work was done. The ice and snow of that winter day which witnessed the entombment of his decaying remains, were a fitting emblem of the gloom and sorrow and despair which settled down on the hearts of those who knew what this man had been and what possibilities had remained to him. Alas, the Vanity of Human Hopes!

It remains to those of us who are left to see to it that the lesson of his life be not lost, that no halt in the march of professional progress occur because of the vacancy which his departure has caused.

George Ryerson Fowler was in a peculiar degree a representative product of the place and time in which he lived. His parents were of Long Island, he was born on Long Island, and his entire professional life was spent on Long Island. His education, begun in the common school of his native town, was continued throughout all the years of his life; like a grand organ to the touch of a master hand, his powers continually responded to the stimulus of his environment and of his opportunities, and intellectual growth characterized him to the last. Energy and integrity, high ambition and a just self-confidence, enthusiasm, courage, and graciousness of manner, these were his natural endowment; added to this there was a steadiness and persistence and tenacity of purpose in every work which he undertook, that enabled him to advance steadily in every field of effort upon which he adventured.

The versatility and readiness to adapt himself to every demand upon his energy and judgment, the honesty and integrity with which he discharged the duties of the many different kinds which were laid upon him, the cheerfulness and hopefulness and evident capacity with which he assumed every burden; the homely virtues of devotion to friends, grateful remembrance of favors received, and love of family, the recognition of civic and patriotic responsibilities and of religious duties, all these contributed to form a symmetrical and most attractive character that may well be pointed at as that of an ideal Amer-

ican citizen, and as the best product of a Long Island heredity and a Long Island environment.

The awakening consciousness of the boy was stirred by the events of the civil war; his growing intellectual powers were stimulated by the wonderful material development of this country during the last quarter of the nineteenth century, and with it they kept an equal pace. As the provincial and narrow affairs of the Brooklyn of 1872, when he assumed citizenship here, steadily developed into the metropolitan conditions of the beginning of the twentieth century, he grew with it until, *facile princeps*, his international reputation had become the boast of his fellows and one of the precious possessions of the city.

1848 to 1906, what a wonderful period in which to have lived! A period which witnessed the most dreadful terrors of war, and the most signal triumphs of peace; the mature age of steam and the youth of electricity, when iron was supplanted by steel, when distance was annihilated, when oceans were converted into ferries, when the printing press diffused universal knowledge, when the nations of the earth were brought so near together by such intermingling of interests that the glimmerings of the day when their common brotherhood should be acknowledged began to be perceived, when science uncovered so many of the secrets of nature, when breadth of vision and largeness of affairs pushed out so much that was narrow and petty in men's views of life! This was the age and these were the things that reacted upon the innate qualities of this man to make him what he became, and to which he responded so notably.

In the domain of his chosen profession the period was no less remarkable. He was born almost synchronously with the demonstration of the possibilities of surgical anesthesia, he received his diploma as a Doctor of Medicine while still the doctrines of microbic wound infection and of surgical antisepsis were new and strange and not yet generally accepted. His prescient vision and plastic mind received with eagerness and full faith the new truths, and he devoted himself with enthusiasm to the development of the ultimate possibilities of the transfigured surgery.

It is a trite observation that rarely do any permanent monuments testify to the public esteem of the services of a physician to a community. There is little in his work which attracts public notice in such a way as to command continued interest in his career for any length of time after he has gone. Most of his work is done in detail, to individuals; the wider exten-

sion of the influence of the masters of the profession by the power which they exert over their associates, their pupils or their juniors in the same calling is not realized by the public at all. No profession is more highly appreciated and honored, as a whole, than is the profession of medicine. Science bringing practical relief to men in their hours of greatest distress is a thought that appeals at once to the admiration and esteem of all. But in no profession are its individual practitioners more often misunderstood, or misjudged; blame is given where praise is deserved, and praise is often meted where there should be blame. The physician dies; his memory is cherished for a time in the hearts of a few individuals who remember what he did for them, but they, too, soon die, or install a successor in the room of the one who has gone, and it is not long until little, if any, record remains of one upon whose activity and judgment, during his lifetime, the highest interests of multitudes seemed to depend.

The high rewards which incite men to notable exertion in other callings can play but little part in the life of a physician. The path to fortune does not lie along the line of medicine; the rich physician is so either by inheritance or by the abandonment of his profession for commerce and trade. Power, in its large sense, involving the ability to influence the course of important public measures or the fate of great bodies of men, is not for the physician. Public applause, fame, glory, as the soldier, the orator or the statesman enjoys it, is not among the rewards to which a physician can aspire. The most that a physician can hope for by way of public record or appreciation after he has gone is the simple statement: "He was a good man, an able practitioner, and kind to the poor!" Then the waves of forgetfulness close over him, and the world goes on as before.

Among his own brethren, however, may the physician hope for a somewhat longer remembrance. Here is a public by which his work is understood more nearly in its true proportions. In their traditions, as exemplified in their literature, it is possible that even the physician's longing for immortality may be in a measure gratified. The fraternity of medicine is a natural outgrowth of the peculiar conditions which inhere in the very nature of the calling, and which cause its practitioners to be a class set apart from other men to a marked degree.

We have heard much about the quarrels and jealousies of medical men; generally these are

but the natural effects of the meddlesomeness and misrepresentation of others acting upon impatient and over-worked men. Unfortunately, the divinity that is within us is encased in earthen vessels. We ought, however, to hear more of and to magnify that enthusiasm for the relief of men, which is the controlling and dominating spirit which sustains physicians, as a class, in their most trying and undesirable duties. Strange, indeed, would it be if every man who felt the domination of this spirit within his own breast did not regard as a brother every other one whom he believed to be moved by the same impulse. Hence the community of interest, the community of knowledge, the special personal regard, the *esprit de corps*, which at all times and everywhere binds physicians together. The higher the personal character of the individual physicians, the wider their culture and the broader and more positive their knowledge, the more influential their position in a community, the more marked is this fraternal spirit which pervades them.

It is this spirit which has caused this assembly at this time. Indeed, this noble building, this great hall, this wonderful collection of books, this Medical Society of the County of Kings, itself, is the product of this spirit alone. This is our "Hall of Fame." Upon the book-shelves in the adjoining room rest the products of the labors of those of our brothers in the past who have been gifted with the talent for letters, and here shall be gathered the work of our own pens as well as that of those who are to come after us. What they and we may have done shall here be preserved; upon these walls shall be inscribed the names, or upon them shall be hung the portraits or perchance the effigies of those of our colleagues who in each generation shall have contributed in a special degree to our common knowledge and welfare.

To-day the words, "Those who knew George Ryerson Fowler," would include all present, for no member of the medical profession was more widely known, universally respected, or generally loved than he.

To-morrow it will not be so; the law of change is never suspended. "Lest we forget" is a sentiment that may well prompt us to many endeavors. While, therefore, the memory of our colleague is still fresh upon us, while his many endearing qualities still retain their charm to us, and while the effects of his work in this community still stand out clear and distinct, it is well that we place upon these walls some tablet that



shall preserve the memory of this man to us and to those who are to come after us.

The presentation of such a tablet to this Medical Society of the County of Kings is my melancholy privilege at this time. It is, first of all, an expression of the esteem and respect in which this man was held by his colleagues, but beyond that, and perhaps more than that, it is an expression of the appreciation and pride and satisfaction of medical men in a career which embodied in so high a degree the loftiest ideals of the medical calling. We loved and trusted the man as an individual; we cherish his memory as a type of what a physician should be.

As long as this bronze shall endure and preserve to the memory of the physicians of this county the career of George Ryerson Fowler it will be an incentive to similar devotion and enthusiasm upon the part of those who shall look upon it and learn who and what manner of man he was.

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## MEDICAL NEWS.

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EDITED BY CLARENCE REGINALD HYDE, M.D.

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*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

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Dr. John A. Longmore has removed to 158 Clinton Street.

Drs. John A. McCorkle and Gordon R. Hall sailed for Europe, July 14th.

The summer home of Dr. J. M. Winfield, of Brooklyn, was struck by lightning and burned to the ground in Hampton, Conn., July 11th. Fortunately none of the members of the household were shocked, contrary to newspaper reports.

Dr. Jerome B. Thomas, L. I. C. H., '92, intends to resume the practice of medicine in this city instead of Los Angeles, Cal., as previously noted. He will specialize in the eye and ear.

Dr. Burdette O'Connor, L. I. C. H., '94, who recently returned from Mackey, Idaho, is practicing in Montclair, N. J.

Dr. P. H. Berlenbach, of 9 Stuyvesant Avenue, has left for an extended trip to the West. He will visit the Canadian National Park, the Yel-

lowstone, Alaska, British Columbia, Catalina Islands and other points of interest.

Through the kindness of a modest philanthropist, whose donation of \$20,000 completed the fund of \$125,000 raised by the Association for Improving the Condition of the Poor to capture the conditional gift of John D. Rockefeller for a similar amount, an open air hospital at Coney Island for the treatment of maimed and crippled children is assured. All that remains now is to secure a site and the construction work will then be started.

Dr. George E. Everson, of Brooklyn, N. Y., at a recent aldermanic meeting introduced a resolution which is designed to benefit the poor who apply for admission to hospitals. It provides that hospitals must accept all patients unless they are suffering from contagious diseases or some disease not specifically treated by the hospital. Failure to comply with this regulation renders the superintendent of the hospital liable to a fine of \$100. The ordinance also makes provision for the proper care of patients and does away with the custom of transferring dying patients to Bellevue in order that the death rate of the institution to which the patient was originally taken may not be affected. Dr. Everson stated that he thought Bellevue was used as a clearing house for many Manhattan hospitals.

Huntington, L. I., has a summer colony of Brooklyn physicians with their families, among them being Drs. Gildersleeve, Grant Baldwin, James Watt, Frank Baker and William E. Butler.

Dr. Alexander Hutchins, of 796 De Kalb Avenue, is seriously ill at his home. He was actively engaged in practice up to the time of his illness.

Dr. James Watt, of 174 Clinton Street, will act as assistant surgeon to Dr. William B. Brinsmade, at the Long Island College Hospital.

The Gynecological Library of von Gusserow, consisting of 4,000 volumes and 1,000 pamphlets, is for sale by his widow. For particulars, address Dr. Max von Ricklinghausen, 4 Rue Auber, Paris, France.

Dr. Edward C. Branch, L. I. C. H., '90, and formerly of this borough, has recently returned from Fargo, North Dakota, where he has been practicing medicine. He has located his office at 125 Pioneer Street, in the house formerly occupied by Dr. James H. McCabe. Dr. Branch returns to Brooklyn after an absence of fourteen years.

Dr. DeWitt Parker, of 154 Clinton Street, who had started West on an intended trip to the Yellowstone Park, was suddenly taken ill on the lake steamer, and later removed to the Duluth Hospital. His illness was evidently due to ptomaine poisoning, as some sixty other passengers on the boat were similarly affected. Dr. Parker is at present out of danger and expected home shortly.

Dr. Amelie D. F. Vonderluhe, one of the best known physicians of Williamsburg, died at Greenport, L. I., on Saturday, after an illness of sixteen months. Dr. Vonderluhe was born in Pennsylvania in 1860 and was graduated from the New York College and Hospital for Women in 1889. Her father and mother had been prominent physicians. She practiced in Williamsburg and was an attending physician at the Memorial Hospital for Women, the Memorial Dispensary and the Eastern District Dispensary. She was a member of the Kings County Homœopathic Society and the American Institute of Homœopathy. Dr. Vonderluhe was compelled to give up her practice sixteen months ago owing to ill health, and four months ago went to Greenport, hoping to recuperate in order to return to practice in the fall. She is survived by three brothers and two sisters. One of her brothers is Dr. Augustus Vonderluhe, of Hooper Street, Williamsburg.

### BOOK REVIEWS.

**THE DISEASES OF INFANCY AND CHILDHOOD.** Designed for the Use of Students and Practitioners of Medicine. By Henry Koplik, M.D. *Second Edition*, thoroughly Revised and Enlarged. N. Y. and Phil., Lea Bros. & Co., 1906. xii, 885 pp., 33 pl. 8vo. Price: Cloth, \$5.00, net.

The second edition of this work has been brought up to date, rearranged, two hundred pages have been added and a number of new illustrations.

The subject of infant feeding has been largely rewritten and added to, laying special stress upon home modification of cows' milk which is now quite generally advocated by pediatricists. The author had not succeeded in simplifying the process sufficiently to obviate the necessity of some intelligence and judgment in feeding infants, but he presents the matter as simply as our present information will allow.

The author is a clear, concise and somewhat dogmatic writer, but for this reason he has written a good book for the student and young practitioner, and one which reflects the modern practice of the best pediatricists.

The type is clear, the paper and illustrations are good, and it contains a good full index.

**THE MEDICAL DISEASES OF INFANCY AND CHILDHOOD:** With Points on the Anatomy, Physiology, and Hygiene Peculiar to the Developing Period. By Alfred Cleveland Cotton, A.M., M.D. Phila. and Lond., J. B. Lippincott Co., 1906. xvii, 670 pp., 22 pl., 8vo. *Lippincott's New Medical Series*, Edited by Francis R. Packard, M.D.

This is one of the latest of the numerous volumes on the subject of title. Part I, occupying one-fourth of

the book, is devoted to the anatomy, physiology, hygiene and feeding of infants and children. Part II (467 pages) is devoted to a description of "all the medical diseases of infancy and childhood." Because of the large number of diseases mentioned, many of which are not peculiar to infancy or childhood, and the limited space at command, the author has been obliged to be brief, dogmatic and essentially practical in his treatment of many of the subjects. Theoretical and scientific discussions are touched upon lightly. The nomenclature and classification of diseases are at times confusing and unsatisfactory. The practical common-sense method of discussing the diseases and their management compensates, in a great measure, for the above defects. It will probably meet with a demand from many physicians who want a common-sense practical handbook on diseases of children.

**A TEXTBOOK OF PHYSIOLOGICAL CHEMISTRY:** For students of Medicine and Physicians. By Charles E. Simon, M.D. *Second Edition, Revised and Enlarged.* Phil. and N. Y., Lea Bros. & Co., 1904. 500 pp., 8vo. Price: Cloth, \$3.25.

The author has arranged the chief facts of physiological chemistry under three headings.

*First*—Origin and chemical nature of foods;

*Second*—The processes of digestion, resorption and excretion, including the chemistry of the urine and feces.

*Third*—The chemical study of the tissues and various organs of the body, and the specific products of their functional activity.

The book is intended chiefly as a text-book for medical students, and on that account is a good book for the physician who wishes a work of reference on this subject, where he can find the chief facts briefly and clearly stated. The subject of physiological chemistry has been taught in the medical schools of this country but a few years, but is destined in the future to play a most important part in the development of medical science and practice. This book of Dr. Simon's is one of the best text-books, in English, on the subject.

**LECTURES ON TROPICAL DISEASES;** being the Lane Lectures for 1905 Delivered at Cooper Medical College, San Francisco, U. S. A., August, 1905. By Sir Patrick Manson. Chic., W. T. Keener & Co., 1905. viii, 230 pp. 8vo. Price: Cloth, \$2.50 net.

Anything from the pen of Sir Patrick Manson cannot fail to be of interest to the medical world.

These lectures should be read with especial attention by the profession of the United States, for they are upon diseases that are difficult to diagnose, and ones that are apt to invade our sea ports at any time. Nothing but praise and commendation can be said of the book, the only regret or criticism is, that there is not enough of it, and it is hoped that in the near future the author will add some chapters upon the plague, leprosy, dysentery, etc., the few hours at his disposal for these lectures making it impossible to have remarks upon these diseases incorporated in the volume under review.

The agreeable colloquial style makes the book fascinating reading. It is the reviewer's opinion that this and all of the other works of Sir Patrick Manson should be in the libraries of all practitioners of medicine.

W.

**A COMPEND OF OBSTETRICS.** Especially adapted to the Use of Medical Students and Physicians. By Henry G. Landis, A.M., M.D. *Revised and Edited* by William H. Wells, M.D. *Eighth Edition—Illustrated.* Phila., P. Blakiston's Son & Co., 1906. Front., ix, 227 pp., 3 pl. 12mo. Blakiston's Quiz-Compend. Price: Cloth, \$1.000. Interleaved, \$1.25.

That this little volume has reached its fourth edition is evidence that it has been found useful. It has been brought well up to date by its present editor. While such compends are frequently condemned by reviewers no teacher can doubt their utility. Properly used they serve a valuable purpose in laying the foundation for more extended knowledge of the subject and they greatly facilitate the mastering of larger works.

C. J.



# BROOKLYN MEDICAL JOURNAL

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No. 9.

## ORIGINAL ARTICLES.

### HONORS THAT HAVE COME TO THE MEDICAL PROFESSION IN AMERICA.

#### ANESTHESIA.

BY WILLIAM SCHROEDER, M.D.

Chairman of the Historical Committee of the Medical Society, County of Kings, The Brooklyn Medical Society, Member of the Historical Committee of the Associated Physicians of Long Island.

The writer has no desire at this time to demonstrate who discovered anesthesia, as that question has been presented in a very able manner by Joseph H. Hunt, M.D., in 1896 and published in the *Tri-State Medical Journal*, but simply to present a number of the monuments that have been erected in honor of those men who claim to have been directly or indirectly connected with the discovery of anesthesia and its practical application to operative surgery.

Our first thought naturally turns to Joseph Priestley, LL.D. He was born in Fieldhead, near Leeds, England, on the 24th day of March, 1733, and died on the 6th day of February, 1804, in Northumberland, Pennsylvania. The University of Edinburgh conferred upon him the degree of LL.D. in 1766. He was a Fellow of the Royal Society, Royal Medical Society of Paris and the Literary and Philosophical Society of Manchester.

Joseph Priestley embarked for America April 7, 1794. At this time he was presented with a silver inkstand bearing the following inscription:

"To Joseph Priestley, LL.D., on his departure into exile, from a few members of the University of Cambridge, who regret that this expression of their esteem is occasioned by the ingratitude in their country."

The statue erected in honor of Joseph Priestley was unveiled on August 1, 1874, at Birmingham, England. The address delivered on the occasion was by Thomas H. Huxley, M.D., LL.D.

So many different discoveries have been attributed to Joseph Priestley that I have requested William Schroeder, Jr., M.D., to prepare a list, which is as follows:

Ammonia was known to the early alchemists under the name of "spiritus salis urinæ." More

elaboration by Basil Valentine in the fifteenth century; later, Glauber termed this body, "spiritus volitilis salis armonici." In 1727 Stephen Hales mentioned that sal-ammoniac, when heated with lime in a vessel closed by water, there was no air given off, but, on the contrary, water is drawn into the apparatus. Priestley, in 1774, repeated this experiment with the difference, however, that he used mercury to close the apparatus. He thus discovered ammonia gas, to which he gave the name of "alkaline air."



JOSEPH PRIESTLEY, LL.D.

The Arabian alchemists were acquainted with hydrochloric acid. Glauber first obtained this acid by the action of sulphuric acid on common salt about the year 1648, and Stephen Hales, in his work on "Vegetable Staticks," published in 1727, observed that a large quantity of gas which was soluble in water was evolved when sal-ammoniac and oil of vitriol were heated together. It was not, however, until Priestley collected the gas thus evolved over mercury that the gaseous hydrochloric acid was first prepared,

and to this gas Priestley gave the name of marine-acid gas.

Priestley, in 1775, first prepared the pure sulphur dioxide in the gaseous state, to which the name of sulphurous acid was afterward given.

Carbonic oxide was first obtained by Lassone by heating zinc oxide with charcoal. It was for a long time mistaken for hydrogen, until Priestley, in 1796, showed that iron scales, when heated with well-calcined charcoal, give out an inflammable air, whereas, according to Lavoisier's theory, it ought to give carbonic acid.

Chlorine discovered by Scheele in 1774.



ETHER MONUMENT.

Priestley . . . August 1, 1774, obtained oxygen. He also first prepared nitric oxide (nitrous air or gas) . . . first observed by Van Helmont. Nitrous oxide, 1772 (dephlogisticated nitrous air); carbonic oxide, 1796. He likewise collected many gases for the first time over mercury, thus ammoniacal gas (alkaline gas), 1774; hydrochloric-acid gas (marine-acid gas), sulphurous-acid gas (vitriolic-air gas), 1775; and silicon tetrafluoride (fluor-acid air). Silicon tetrafluoride was first observed by Scheele in 1771.

ETHER MONUMENT.

Public Gardens, Boston, Mass. Dedicated June, 1867. Inscription:

"To commemorate the discovery that the inhaling of ether causes insensibility to pain, first proven to the world at the Massachusetts General Hospital in Boston, October, A. D. MDCCCXLVI."

"Neither shall there be any more pain."—*Revelations*.

"This also cometh forth from the Lord of Hosts, which is wonderful in council and excellent in working."—*Isaiah*.

"In gratitude for the relief of human suffering by the inhaling of ether, a citizen of Boston has erected this monument. A. D. MDCCCLXVII."

The gift of Thomas Lee.

JOHN COLLINS WARREN, A.M., M.D.

The marble bust of Dr. John C. Warren is the work of Horatio Greenough, and is in the lecture room of Harvard Medical College.—*Brooklyn Medical Journal*, May, 1906.

On the 16th of October, 1846, at the Massachusetts General Hospital, Dr. J. C. Warren performed the first surgical operation upon a patient previously rendered insensible to pain by the inhalation of ether.

William Thomas Green Morton, M.D., administering the anesthetic.

The Massachusetts General Hospital, a view of which is herewith presented and taken about the year 1846. In the dome of this building the first operation was performed.

WILLIAM THOMAS GREEN MORTON.

Born August 9, 1819, at Charlton, Mass., and died in New York City, July 15, 1868.

Receiving the degree of D.D.S. in 1842, from the Baltimore College of Dental Surgery, and that of M.D. from the Washington University, Baltimore, Md., in 1852.



MASSACHUSETTS GENERAL HOSPITAL.



The Order of St. Vladimir was conferred upon him by Russia and that of the Order of Vasa by Sweden. He also received the gold medal from the French Academy of Arts and Sciences.



MONUMENT OF WILLIAM THOMAS GREEN MORTON, M.D.

A silver casket was presented to Dr. William T. G. Morton bearing the following inscription:

In front—

"Testimonial in honor of the ether discovery of September 30, 1846."

On the lid—

This box containing One Thousand Dollars

Is presented to

William Thomas Green Morton

By the members of the board of trustees of the Massachusetts General Hospital

And other citizens of Boston.

May 8th, 1848.

"He has become poor in a cause which has made the world his debtor."

The monument erected in Mount Auburn Cemetery, Cambridge, Mass., bears the following inscription:

Wm. T. G. Morton,

Inventor and Revealer of Anæsthetic Inhalation.

Born August 9, 1819. Died July 15, 1868.

"By whom pain in surgery was averted and annulled. Before whom in all times surgery was agony. Since whom science has control of pain."

Erected by the Citizens of Boston.

HORACE WELLS.

Born January 21, 1815, in Hartford, Vermont, and died in New York, January 1, 1848.

The French Academy conferred upon him the degree of M.D. in 1847 and the Paris Medical Society elected him an honorary member.

The State of Connecticut and the City of Hartford each contributed \$5,000 for the erection of a statue in honor of Horace Wells in Bushnell Park, Hartford, Conn.

The inscription in front on pedestal is as follows:

Horace Wells,

The Discoverer of Anæsthesia,

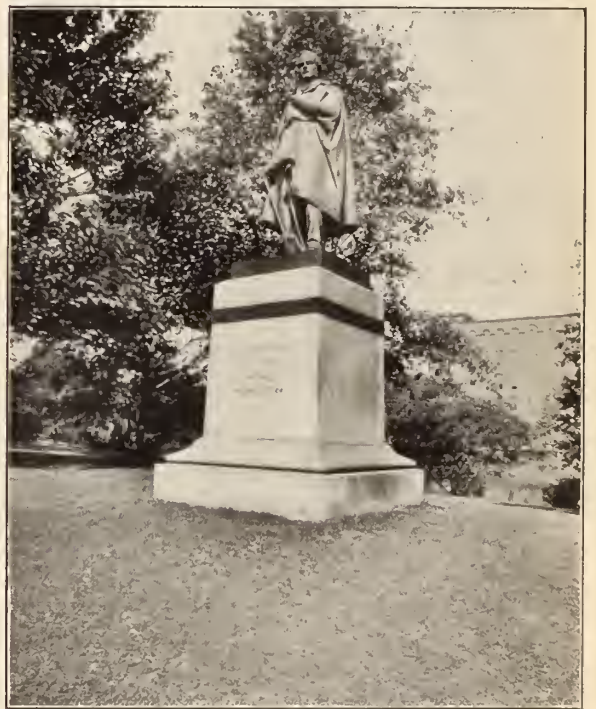
December, 1844.

The wording is somewhat different than is usually found in books, which is "Who Discovered Anæsthesia." The writer had a photograph made of the statue and the above is a correct reading of the same.

CHARLES THOMAS JACKSON.

Born June 21, 1805, at Plymouth, Mass., and died August 28, 1880.

Dr. Jackson received the degree of M.D. from



STATUE OF HORACE WELLS, M.D.

Harvard University in 1829. He received the following decorations: Cross of the Legion of Honor—Louis Napoleon; Red Eagle of Prussia—King of Prussia; Gold Medal—King of Sweden; Order of Medijeh—Sultan of Turkey; Cross of S. S. Maurice and Lazzaro—King of Sardinia.

A monument has been erected to his memory

in Mount Auburn Cemetery with the following inscription:

Charles Thomas Jackson, M.D.,  
Son of  
Charles and Lucy C. Jackson,  
Born at Plymouth, 1805. Died 1880.  
Eminent as a Chemist,  
Mineralogist, Geologist,

and investigator in all departments of Natural Science. Through his observations of the peculiar effects of Sulphuric Ether on the nerves of Sensation, and his bold deduction therefrom,



MONUMENT OF CHARLES THOMAS JACKSON, M.D.

the benign discovery of painless surgery was made.

Thy Godlike crime was to be kind to render with thy precepts, less the sum of human wretchedness, and strengthen man with his own mind.

CRAWFORD W. LONG.

Born November<sup>1</sup> 1, 1816, Danielsville, Georgia.  
Died June 16, 1878, Athens, Georgia.

Franklin College, A.B., 1835, "University of Georgia"; University of Pennsylvania, M.D., 1839.

He claimed that he performed on March 30, 1842, the first surgical operation with the patient

in a state of anesthesia from the inhalation of ether.

The Georgia Medical Society are collecting funds to erect a monument to Dr. Long in the near future, also a tablet is to be placed on the building, or on the site where such building was, in which Dr. Long's first operation was performed.

The Legislature of Georgia passed a resolution to place the statues of her two most distinguished men in Memorial Hall at Washington, D. C. The names presented were Alexander H. Stephens and Crawford W. Long, M.D.

#### NASAL MALFORMATIONS AND DISEASES OF THE NASAL ACCESSORY SINUSES.\*

BY CHARLES WALDO STICKLE, M.D.

*Mr. President and Gentlemen:* I have been very kindly requested to appear before you to-night to describe the methods, as seen by me in various German clinics during 1904 and 1905, of diagnosis and treatment of intra-nasal malformations, and suppurative processes in the nasal accessory sinuses, with resulting neuroses, together with a personal consideration of these methods.

It is not my intention to describe any but the gross details of the symptoms and treatment, together with the general mention of possible resulting neuroses from the view-point of the general practitioner.

I appreciate the fact that by the general practitioner this subject has been taken into consideration as a causative symptomatic factor or as a factor of disease only in a very small degree, and therefore at this time that it will be a subject upon which to produce more than a passing interest is beyond my expectation.

So very little had been written on these subjects prior to 1902, and so much since that time in the special surgical journals, and to some extent in the journals of general surgery, that it probably appears to many medical men as a fad of certain men devoting their time to this work as a matter of frenzied intra-nasal surgery. No doubt a great deal has been written on the treatment of these conditions which will, after mature deliberation over a series of operated cases, be retracted or qualified and original decisions be attributed to the general wave of enthusiasm; but the issue will remain the same, that many of those heretofore obscure and perplexing conditions can

\* Read before the Brooklyn Medical Association.



be traced to the absorption of toxic material pent up in these cavities or to the pressure on nerve endings from turbinate or septal malformations or degenerations, acting as a source of irritation to special nerves or to the sympathetic nervous system, thus producing a variety of neuroses.

Those cases of so-called "catarrh," of which the general practitioner sees many, and from which there has been held out no hope of relief, invariably come either under the head of inflammation, nasal or naso-pharyngeal, whether it be sinus disease or intra-nasal malformations. The question, "What is good for catarrh?" is one which the physician hears every day. A discharge of pus or muco-pus from the nose means that we have an infected area somewhere. Palliative treatment of these cases is of course of no avail, the only relief held out to the sufferer is the removal of the infected area by surgical interference.

We have presented two varieties of inflammation of the accessory sinuses, acute and chronic. The first being termed for easy recognition, simple empyema, the latter, where there is a degeneration of the mucosa and underlying bone, a sinusitis. The attention of the general practitioner is very much more frequently brought to the notice of the acute conditions on account of the constitutional symptoms attending them. There is a series of symptoms which is common to all sinus inflammations of either class. In the acute the most important are headache, pain, feeling of distention from pressure, fever, coryza, œdema; in the chronic, headache, pain, pressure, œdema, fetor from degenerated pus, objective changes in the mucous membrane, swelling of the external contiguous parts.

The labyrinth of nasal accessory sinuses consists normally of a series of air chambers connecting through their ostia with the nasal cavity. This chain of cells, contained within the wall of the frontal bone, the lateral bodies of the ethmoid, the body of the sphenoid, and the body of the superior maxilla, do not communicate with each other except as a result of disease or congenital anomaly. They are lined with mucous membrane continuous with that of the nasal passages. The most superior sinus is the frontal, situated within the anterior inferior wall of the frontal bone and having its ostium in the most dependent part, emptying into the nose through the infundibulum, posterior to the uncinate process. In an infected inflammation of this sinus, pus may be seen coming direct from the infundibulum, or as a result of necrotic or previous inflammatory process or congenital anomaly, may empty through

any one of the ethmoid cells posterior to it, appearing at any position from the infundibulum to the recess anterior to the sphenoid body. Positive diagnosis can be made only by elimination or by a series of confirmative procedures, viz., by plugging the posterior passages, the pus being caused to flow directly from the hiatus semilunaris or, after passage of a probe, following that instrument; by positive transillumination of sinus and by the constitutional symptoms, headache, pain on pressure, œdema of the eyelids or the surrounding tissue. We sometimes find a bulla frontalis, which is an anterior ethmoidal cell, projecting far into the frontal sinus, this may become infected, but not affect the frontal sinus proper, and which is very apt to cause an error in diagnosis.

The diagnosis of ethmoidal empyema is practically made in the same way by elimination, and by the frequent additional symptoms of ocular disturbance, photophobia, excessive lachrymation and disturbances of vision. By being sure that the exit of pus from the frontal sinus is prevented, subsequently locating a pus streak in the olfactory cleft, or by probing the cells, thus securing a direct streak. A pus streak on posterior edge of septum may mean either from the posterior ethmoidal cells or sphenoid sinus, as may be the case with a posterior-pharyngeal wall streak. The diagnosis and treatment of ethmoidal empyema is by the far the most difficult because of the infinite variations in formation of the labyrinth.

Sphenoidal empyema; diagnosis made by presence of pus streak on posterior pharyngeal wall, posterior septal streak, or by seeing the pus coming directly from the natural ostium (this may require the removal of a middle turbinate or other intervening obstruction).

The diagnosis of simple sphenoidal empyema to be made only after elimination of ethmoidal involvement; together with the various constitutional disturbances.

Superior maxilla empyema; diagnosis made by pain, tenderness on pressure, in the chronic, odor, of which patient is conscious, degenerative changes of the mucous membrane of the turbinate, presence of pus in middle meatus and floor, aspiration through ostium or lateral wall, dental neuralgia, and other constitutional symptoms.

Transillumination is an uncertain diagnostic factor. In the majority of cases of maxillary empyemas a dark shadow is thrown, in some frontal empyemas transillumination is a positive factor, but it has been demonstrated very fre-

quently that an empyema may exist and the cavity illuminate normally, and vice versa.

Involvement of any of the sinuses may be secondary from gravity infection. The most common secondary involvement is that of an antrum from a frontal empyema. In some cases all symptoms except discharge are wanting; these are the cases of free drainage. Those cases with no secretion, but with the constitutional symptoms, are the most dangerous because of the possibility of escape of pus into the cranium or through the blood channels. Occurrence of headache in any particular portion of the cranium is not a positive significant symptom of any one sinus inflammation.

Nearly every operator has his own special ideas regarding surgical procedure for the relief of degenerative processes in these cavities.

Some seem to think that external radical methods are the only ones to be considered, and adopt this plan almost invariably where there are positive signs of necrotic intra-cellular tissue. Others are much more conservative in their methods, and notwithstanding that by using the intra-nasal route it may be a rather tedious procedure before recovery occurs, bear in mind the fact that the patient may have some consideration for the contour of his physiognomy.

As far as I have been able to judge, results by the so-called conservative or intra-nasal route, in the vast majority of cases, are as satisfactory and the natural contour is preserved. This method causes but little inconvenience, and not a great deal of pain or discomfort to the patient. To be sure there is a class which demands the external operation—those are cases of extensive bone necrosis, they are very rare indeed in comparison to those upon which intra-nasal methods serve the purpose.

Jansen, of Berlin, has devised an operation whereby he clears out the whole labyrinth of sinuses through the maxillary antrum by way of the anterior wall above the alveolar process, removing the lateral nasal wall with the turbinate, the ethmoidal cells, opening into the frontal, and removing the anterior wall of the sphenoidal sinus. This operation, while of the most radical character, certainly leaves no doubt as to the possession of a procedure whereby all diseased tissue is absolutely removed. Great discretion must be used in the selection of proper subjects, particularly in those past middle life, as the shock following this operation is very profound.

Killian's method of removing the anterior frontal wall, clearing out the frontal sinus, re-

moving the ethmoidal cells, middle turbinate and orbital plate of the ethmoid, and the anterior sphenoidal wall, then opening into the antrum through the lateral nasal wall above or below the lower turbinate, seems much more rational procedure as it is less liable to reinfection, more comfortable to the patient, but invariably leaves a depression deformity of the brow. He has recently adopted the method of leaving as much as possible of the superciliary ridge, removing plate above and below, thus preserving the brow contour to a great extent.

Ritter, in Heyman's clinic, rarely enters the frontal sinus above the superciliary ridge. He removes the bone posterior to the nasal process of the nasal bone, going above into the frontal, and below and posteriorly removing the ethmoid cells, together with the orbital plate and middle turbinate, and draining from below through the nose, completely closing the external wound. This leaves absolutely no deformity, except the cutaneous scar.

In the other clinics, as Barth, of Leipsic; Halle, of Berlin; Fraenkel and Meyer, of Berlin; Zaufel, of Prague; Hajec, of Vienna; practically the same methods are used with slight personal modifications.

In this country the same methods are generally in vogue, with the exception of Coakley, of New York. After opening the frontal sinus by removal of the entire anterior wall, scraping out diseased necrotic tissue, packs the same as in mastoid disease and allows the cavity to fill by granulation from below. By this method the frontal sinus is certainly obliterated, but it also leaves the greatest amount of brow deformity.

In the intra-nasal method, which is available in the greater number of cases, the procedure in a case of general sinusitis during general anesthesia, or, if preferable, with a local anesthesia (this can be used in a great percentage of cases) is to remove the middle-turbinate bone with conchotome or scissors, the ethmoid cells, with punch-forceps and curette, to orbital plate on the side, and to cribriform plate above. This leaves a clear field for enlarging the frontal ostium and also to remove with the greatest ease the anterior wall of the sphenoidal sinus; then to remove the anterior half of the lower-turbinate bone, and a sufficient amount of the lateral wall in the lower meatus, as near the floor of the nose as possible, for subsequent irrigation of the maxillary antrum. The cavity is packed with gauze to be removed at a later date, and the surfaces allowed to granulate. In the case of eth-



moid, subsequent sittings are usually necessitated for the scraping out of localized recesses which contain particles of necrotic tissue escaping detection during the major operation.

This operation is practically bloodless and painless under local anesthesia. The patient loses practically no time; while there is some shock, it is not to be compared to that accompanying the external radical operation.

I have seen in almost all the clinics abroad the most satisfactory results in a great number of cases which would be classified by the extreme radical operator as being fit for the external operation only, and that has been my experience in my own cases since returning.

There is no doubt that the intra-nasal route is accompanied by more or less danger. One must not lose sight of the possibility of entering the anterior fossa through the cribriform plate or through the superior or lateral wall of the sphenoid, or posterior frontal wall, and extreme caution should be used while operating in these localities. The use of certain instruments such as the electric burr drill, by no matter how experienced and careful an operator, cannot be too severely condemned.

The acute sinus inflammations rarely demand operative treatment, only when drainage cannot be otherwise secured.

The intra-nasal malformations to which I desire to call attention are those most common affections which every man sees in his daily practice, turbinate vasomotor hypertrophy, the atrophy due to the presence of degenerative processes, septal deviations and exostoses. Vasomotor enlargement of the nasal mucosa is due either to constitutional dyscrasia, peripheral nerve ending irritation or occurs during the early stages of intra-cellular degeneration, to be followed in the latter case by the secondary atrophy with ozena (held by most authors as a secondary mucous membrane involvement accompanying chronic rhinitis whether in the strumous tuberculous, or syphilitic). The contention of such noted men as Dr. Carl Michel, of Cologne; Professor Grüwald, of Bresgen, and in the clinics of Jansen, Hajec, Halle, Ritter and Heyman, is that ozena occurs only as symptomatic of sinus disease; however this may be, we have had but few reported cases of recovery except as a result of operative measures upon the accessory sinuses, and these may be the result of a natural radical process or spontaneous evacuation from some recess of the inciting organism. My own ex-

perience teaches me that all cases of ozena are symptomatic of intra-cellular necrosis.

Lower turbinate-vasomotor hypertrophy due to constitutional disturbance which remains after appropriate treatment, as after the removal of such exciting causes of benign tissue hyperplasia, as adenoids in the pharynx, or excess of lymphoid tissue on the posterior border of the septum, papillomatous degeneration of the posterior ends of turbinates, myxomatous degeneration as a result of intra-cellular inflammations, septal spurs or deviations, were without exception, in all these clinics, treated by the excision of longitudinal strips of mucous membrane and the posterior end of the turbinate. By this process the intervening strips of the membrane become united, thereby forming a complete mucous membrane covering of the bone, with no adherent cicatrices, as in the case following the use of the actual cautery or acids. I see no objection, provided discrimination is used, to the excision of the mucous membrane *in the manner stated*, and *not in a way precluding* the possibility of union of the edges of the wound.

The sub-mucous resection of the septum is a surgical procedure, which in my opinion, if done properly, hence successfully, is the most difficult of all intra-nasal operations. Tedious in the extreme for the operator and operated-upon, it requires a manual dexterity and an ocular precision for which not all otherwise good intra-nasal operators are fitted. There is no doubt that this method is at present very fashionable, but as is the case with all surgery both very good and very bad work is being done. It seems to me that this method should not be condemned by those who have either not tried it, or have tried it, but unsuccessfully, at least until the general wave has passed to allow time for perfecting, by those not naturally fitted for the work, or by their withdrawal from that particular field. We must learn from practice and experience, but we cannot all do the same thing equally well. This method has been generally adopted in all the nose and throat clinics of Europe, since it was originated by Krieg, as the rational method of straightening septa, or the removal of septal exostoses, whether for the relief of interference with the air current, or for cosmetic purposes, with a degree of success which precludes the possibility of returning to the crude methods, comparatively speaking, in previous use. So much has been written in the past and is at present appearing in the medical press that it would

be a trespass upon your time to detail the operation.

Let me state in a general way the methods which have been adopted by most operators with individual modifications in Europe and in this country. Killian, of Freiburg, is probably the foremost advocate of and operator by this method.

Most of the deformities of the nasal septum have their origin in an injury. They are located anteriorly in the region of the cartilaginous septum, where they can be easily felt or seen, or they may occur throughout the contour of both cartilaginous and bony septum. It is only in very recent years that any surgical treatment of the bony portion has been attempted. Krieg was the first to prepare the way for the treatment of these deep-seated deformities. He removed the mucous membrane on one side of the septum because it was in the way during the operation. It was finally proven with satisfaction that with a single opening through the mucous membrane at the nasal orifice the two mucous layers could be elevated from the cartilage and osseous septum and held apart, so that under the direction of the eye the deviating septum could be resected to any extent desired.

The method most common in use is that of making the incision through the mucous membrane directly over the angle of greatest deviation, and reflecting the same, with the perichondrium from, behind forward, to point of beginning deviation, there to incise the cartilage and separate mucosa from other side, then by the selected method to remove the deflected portion to point of first incision, then to separate mucous membrane from the cartilage or vomer or perpendicular plate from before backward, and to remove the deviated portion; the deviated bone or cartilage being removed, to approximate the edges of mucous membrane either by gauze packing, collodion covering, or suture. Healing almost invariably occurs in three or four days, and a perfect mucous surface results. The temptation to remove a markedly deflected septum with a vertical angle to too extreme a height is very great. A temptation arising from a desire for a possibly too perfect toilette, should be avoided, as results may be far-reaching in the external cosmetic effects. One should always bear in mind that the object of the operation is only to restore normal breathing space, or to prevent a still further external deviation of the natural contour without endangering the support of the nose. One objection which has been

advanced is that of permanent perforation, I think I can safely say, that to the experienced and careful operator it practically never occurs, and if it should, it is to the patient of no serious consequence. This operation involves but little subsequent pain, the minimum of after-treatment, and I have never seen an infected case provided the turbinate mucosa was undisturbed at that time. It is practically painless and bloodless and, except in extreme deflections, or adherent perichondrium, takes an average of 30 minutes. I am not prepared to admit the wisdom of the statement that one should *not* always rely upon the sub-mucous method for all septal surgery. The consideration of the waste of time in a great many sub-mucous removals of septal exostoses is not well taken, by this method we get an almost immediately healed surface of the original mucous membrane, by any other we get cicatrices, after granulating surfaces, upon which granulations and resulting inflammations, we spend far more time in getting a healed surface of cicatricial tissue, not natural in its adherence nor able to perform the function of a normal mucous surface.

I will conclude with a short résumé of the more important and frequent neuroses occurring as a result of the intra-nasal pressure or degenerative disease.

Neurosis of nasal origin may be divided into two classes—sensory and reflex. The former consists of disturbances of olfaction, the latter of disturbances of sensation.

Anosmia (or total loss of smell) may be caused by some anterior nasal malformation deflecting the air current, preventing contact with the mucous membrane, or by complete occlusion of anterior nares, or by disease of the epithelium whereby the nerves become diseased or destroyed, whether by septal spurs or deviations or turbinate vasomotor hypertrophy or degeneration from sinus involvement.

This condition may be congenital, but is a very common result of particularly ethmoidal sinusitis. Cases of anosmia have been reported resulting from fractures of the cranium through the ethmoid bone. Hyperosmia rarely occurs as an intra-nasal reflex, except as a forerunner of anosmia, but may occur from any excessive irritation of the olfactory filaments. Parosmia as an intra-nasal reflex occurs as a result of suppurative processes in the mucous membrane from infective hypertrophic changes as in influenza, from suppuration in the accessory sinuses and in senile atrophy.



The sensory disturbances, anesthesia, hyperesthesia, and paresthesia may occur as a result of any intra-nasal malformation as suppuration. As a result of pressure on nerve endings we have a hyperesthetic state of the mucous membrane, with disturbance of pharynx and mouth, cough, sneezing, spasm of glottis, asthma, hay-fever, hydrorrhoea.

Hysteria is a common symptom occurring in paresthetic state with the sensation of closure of the nares.

Numerous cases of epilepsy as a result of intra-nasal pressure have been reported. An interesting case came under my observation in Halle's clinic in Berlin. This case gave a history of having three or four seizures daily for a number of years. After the removal of an ethmoidal suppuration and septal deviation, causing pressure on middle turbinate, he cleared up, reporting four months later that there had been no recurrence.

The most distressing reflexes of possible intra-nasal origin are asthma, hay fever and cough. These may occur as a result of any suppurative process either in the accessory sinuses or as a result of pressure from mucous membrane hypertrophy, or other intra-nasal malformations, excess of lymphoid tissue in pharynx, or the presence of pharyngeal œdema as that occurring in Bright's.

Many tabulated series of such cases have been reported. Let it suffice here to state that such conditions occur as a result of such intra-nasal sources, in addition to the many other multitude of etiological factors as neurotic, gouty or rheumatic diathesis, inherited or acquired, exposure to an atmosphere laden with the dust or pollen from some obnoxious plant. The description and treatment of the latter do not come within the scope of this paper; of the former the treatment is, 1st, local, then secondary attention to the restoration of the proper equilibrium of these particularly irritable nerves and nerve centers.

In conclusion I will quote from Schmiegelow in an article on the relations between the diseases of nose and eye, and from Fischer on additional symptoms caused by adenoid vegetations in the pharynx.

"Schmiegelow gives a short résumé of his personal experiences in the domain of orbital diseases of nasal origin. Among sixty-three patients suffering from disease of one or more of the accessory sinuses seventeen were found where the empyema was accompanied by eye symptoms,

as excessive lachrimation, blepharo-conjunctivitis, ciliary neuralgia, violent orbital pains, strabismus convergens; five patients showed dislocation of the bulbus oculi. One patient, a girl of eighteen years, suffered with acute exophthalmus and chemosis of the right eye, following an acute empyema of the right frontal sinus. She recovered without operation in the course of two weeks. Schmiegelow also saw two cases of orbital abscess and phlegmon develop after an acute inflammation of the frontal sinus in a ten and a fifteen-year old boy."

"The same material, 500 cases, that Fischer used in an earlier communication (*Laryngoscope*, p. 163, 1903), is made the foundation of these investigations. Additional symptoms were found as follows: Epistaxis, 10%; enuresis, 15%; headache, 44%; anemia, 34.2%; aprosexia, 35.8%; only patients over eight years of age being considered. Most frequently the aprosexia was accompanied by nasal stenosis in 89%; less frequently by difficulty of hearing, in 60%; and more rarely by anemia, in 31%. 18% of the patients stammered and three patients had faults of articulation."

130 Montague Street.

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**ADDRESS TO THE GRADUATING CLASS OF THE  
METHODIST EPISCOPAL HOSPITAL TRAINING  
SCHOOL FOR NURSES, MAY 31, 1906.**

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BY WILLIAM FRANCIS CAMPBELL, M.D.

The opportunity of addressing the graduating class of the Methodist Episcopal Hospital Training School for Nurses is a task that not only confers an honor, but adds the special pleasure of comradeship to this occasion; for as an interne of this same institution I was nourished in the same soil, breathed the same atmosphere, cherished the same ideals which have surrounded you and lead you step by step from the timid, awkward, far-off probationer, to the present, confident, well-equipped graduate. If to-night you appreciate your obligations to this institution for its inculcation of system, discipline, exact methods, high standards of efficiency, you will later join with me in acknowledging that the debt deepens with the passing years.

Dr. Oliver Wendell Holmes has said that there are three occasions in one's life when one is unquestionably a hero. "Everyone is the hero of his own birth, his own marriage, and his own funeral." I think Dr. Holmes might have added another occasion—one's graduation. For if ever

the heroic tingled in one's blood and high resolve crowned patient endeavor, it is on that particular occasion when the institution where we have toiled recognizes our merits, puts its "well done" upon our efforts, and presents us with our credentials which proclaim to the world that we are worthy of its confidence.

From homesick probationer to home-coming graduate is a long interval of weary watches, trying tasks, and patient toil, yet the joy of this hour compensates for all.

"When the shore is won at last  
Who will count the billows past."

Graduation night to this audience is an occasion, to you it is an epoch. To you it is more than an epoch, for, strange as it may appear, your attitude toward graduation determines your success or failure. For in this word is a subtle meaning from which radiates the evolution of your life.

Graduation means the taking of a step. To the superficial, the taking of a step out; out, and away from school, away from teachers, away from discipline, out into the somewhere they know not whither.

Some nurses, like some doctors, cease to grow the day they receive their diploma, because they have failed to grasp the truth that school is finished only when life ceases.

Graduation is the taking of a step up, not out; up from class to class. You are not to leave school, you are to change schools; you are not to dispense with teachers, you are to change teachers. Every day should be a new commencement; every night a graduation from what you were to something finer, for life is only a school; the name of the school may change, the discipline of the school remains the same. We call it the kindergarten, the primary school, the high school, the college, the training school, the life work, but they all imply the doing of a task, the learning of a lesson, the subjection to a discipline. You cannot get away from school, you must be ever graduating, or you will be ever deteriorating. Life is the school, work the curriculum; you are the scholar, character the diploma.

In the problem of your profession there are three fundamental factors: the tools, the task, and the toiler.

The tools are your technical equipment which you have acquired after three years of persistent and exacting labor. The badge of proficiency conferred upon you to-night is guaranteed by an institution that stands for integrity. Its seal

of approval is a pledge to the public that you are qualified to accept the responsibilities that to you may be confided. Your diploma is no laurel wreath of victory; it entitles you to compete for victory. Your diploma is your commission to go forth and do more. It is your credential to go out and do well. It stands for capacity—not completeness; for preparation—not perfection; for prelude, and not finale.

But what of the task? In all the field of human endeavor there is no work quite like ours; amid the three great mysteries of the universe, life, suffering, death, it is our mission to mingle and minister, and no priest sacrificing at an altar ever performed a holier service.

Stocks and bonds may fluctuate; houses and lands may rise and fall, but human life cannot be estimated in the coin of the realm. Human life is priceless, and so the work that ministers to human life is the most exalted of all. To thoughtfully ponder the meaning and message of your life mission is to be inspired with its measureless possibilities and its matchless opportunities.

The limitations of woman's sphere is not for me to define. I only know that there are three vocations in which she shines resplendent because she reigns supreme. As mother, teacher, and nurse. They all demand a high degree of altruism. In exchange for success you must give yourself. They all demand infinite patience and undaunted faith. Patience with the present weakness, faith in the future strength; patience with great limitations, faith in future possibilities. Yours is a profession, not a trade. There is a subtle quality in a profession that can't be weighed and measured. A pound of sugar, a yard of muslin, I can prove, but who will measure personality or integrity. The largest part of what you give cannot be measured. There is no check on your work, but the check of individual conscience. The great responsibility that weighs upon the surgeon is the responsibility for the work over which he has no control, and for which you must stand sponsor.

A profession is said to be an occupation, or calling, which involves special training or discipline, but deeper than that, it is a vocation which involves special integrity, because the greater part of what you give can't be measured by any human standards, and so, of little use are your rules and formulas, your methods and technical knowledge unless back of them all and permeating them all is a personality that stands for conscience incarnate.

Specially let me call your attention to a phase



of the work which might well receive your consideration. The trend of modern surgery is toward institutional work. In the hospital the aseptic technique finds its highest realization. The private dwelling can never equal the hospital for operative procedures. The public is losing its fear and timidity inculcated by erstwhile hospital fables, and is realizing that its needs are best conserved in institutions founded and dedicated to the care of the sick. As this sentiment deepens more and more will the highest prizes in your profession be found in institutional work. We need more educated, cultivated, dedicated women to manage our hospitals, supervise our training schools, organize our operating rooms. These positions call for the women who have the qualities of leadership, ability coupled with conscience and character. Even now the demand exceeds the supply, and I would earnestly urge upon all who are inspired by a love for the work to equip themselves by post-graduate study and advanced work for these positions which must bring the highest personal satisfaction, if not the greatest pecuniary rewards.

And, lastly, we consider the toiler. Toils and tasks are of value only as they minister to the toiler. You must not only earn your daily bread, you must earn your daily wisdom. Emerson says, "God offers to every mind its choice between truth and repose, take which you please, you can never have both," and your own Frances Willard, "It is not so much what comes to you as what you come to that determines whether you are a winner in the great race of life." "Not what I have, but what I do, is my kingdom," says Carlyle.

The toiler is to unfold himself in the task. You are to express yourself, to reveal your personality, through your work. Robert Louis Stevenson, in speaking of his Aunt June who nursed and mothered and educated the Stevenson children, says, "And all were born a second time from Aunt June's tenderness." What Aunt June missed in her own life, she supplied by unfolding herself in the children of another, and the world owes a debt of gratitude to Aunt June.

Personality is a subtle, indefinable, wonderful something that gives individuality and character to every task. Leave it out and there remains only a machine. Give it full expression and you have added to the lowliest task, color, warmth, beauty and bloom.

How well it has been expressed by a Russian novelist in a drama called "Twenty-six of Us and One Other"! It describes a group of bakers in a subterranean bakery whose habits are hardly

above those of the animals, to whom the poetry of life is represented by an innocent Russian girl who simply passes in and out of the building in which they work, with a smile or a word of greeting, and becomes a kind of divinity to them. Her personality was a crevice through which the blue of heaven shone.

Your work will never bring you the highest satisfaction, nor will you be able to reach your highest possibilities, until you get into right relations with it by giving it the proper place in your life. If it fills the minor part of your thought and gets the husks of your endeavor, if you work by the clock, there is no song and no joy in your toil; you are a slave, a drudge, a common laborer. Not until you master the truth that your work is the most important thing in your life can you come into harmonious relations with it. Work is not merely a means of winning bread, work is a means of winning character. Work is merely a task to be performed, work is an opportunity for your development. The end of work is the making of a man or a woman. The work is the loom on which character is spun. Believe therefore in yourself. Success is from within, not from without. Everyone is a bundle of possibilities. Education and environment are sun and rain, but the seed is within you. How it shall grow, whether it shall bloom, what fruit it shall bear, rests with you.

And, lastly, whether life be under fair skies or foul weather, in calm or tempestuous seas, remember the prayer of the old sailor of whom Montaigne tells. Being caught in a fearful storm he offered up this prayer to the god Neptune: "Oh, God, thou canst save me if thou wilt, and if not, thou canst destroy me, but whether or not I will steer my rudder true."

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## TRANSACTIONS OF SOCIETIES.

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### THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, MAY 11, 1906.

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The President, T. B. SPENCE, M.D., in the Chair.

#### LARGE VENTRAL HERNIA.

DR. C. H. TERRY reported the case of a large stout woman, who was admitted to his service at St. Mary's Hospital suffering from a skin ulceration of a ventral hernia. The hernia was an immense affair and hung down in folds to the pubis. The rupture was of several years standing, and had been unsuccessfully operated upon twice before. It absolutely incapacitated

her from work, the skin-covering in the hernia being tissue-like in spots, and again inflammatory masses could be felt all over the tumor. In a few days, under appropriate treatment, the skin ulceration cleared up, and while the difficulty of giving relief was recognized, yet the patient earnestly sought it, and an operation was finally decided upon. Under ether anesthesia an elliptical incision was made transversely with the long axis of the body and enclosing within the incision the greater limits of the hernia.

It required but little dissection to disclose the magnitude of the task. The sacculations of the intestines ramified in all directions, and were much more numerous than any he had ever seen before, there being about thirty different pockets. Separating these pockets binding the intestines to the skin and to other coils were thick inflammatory adhesions, as difficult to cut as cartilage. In endeavoring to separate these adhesions the peritoneal coat of the bowel was in some places torn off, and the patient's condition becoming alarming, it was necessary to cut off large inflammatory masses and return the whole into the abdominal cavity. The recti muscles were found with difficulty and were approximated with silver wire and kangaroo tendon, as well as possible. The patient was returned to bed, and after a couple of days of vomiting went on to an uncomplicated recovery. An examination the other day showed that there is a slight recurrence, which he hoped to repair soon.

The second case the speaker reported was an immense ventral hernia extending from the umbilicus to the pubis. It was fully as large as the crown of an ordinary derby hat. The patient had been operated on nine years previously for an abdominal tumor. She stated that as soon as she got up a small swelling showed itself, which continued to enlarge until it reached its present size.

At the time the speaker saw her she was having severe, colicky pains, was retaining nothing by stomach and her bowels had not moved for six days. She was removed to the hospital. In the meantime her vomiting had ceased and the bowels had moved twice, but her temperature, which was normal in the morning, had risen to 101 in the evening, and an immediate operation was deemed advisable. Two elliptical transverse incisions were made, surrounding the hernia, and the skin removed, bringing the intestines into view. The adhesions were many and dense. Each pocket (of which there were thirteen) was emptied and the adhesions separated. This was a long, tedious procedure, and, when accom-

plished, the intestines were returned to the abdominal cavity, and the hernial opening closed with silver wire and chromicized catgut sutures, and the skin closed with silk-worm gut.

The patient made an uneventful recovery, her temperature never reaching 100, and primary union was secured, except at the point where the old and the new incisions intersected, where there was a little breaking down of tissue. This patient was kept in bed about six weeks, when she was sent home as cured. Dr. Terry saw her a month after she left the hospital, and there was then no sign of a return of the hernia. He saw her again last week and found the supposed cure was not as permanent as could be desired, still the protrusion was small and well kept back by a pad and support, and she is able to perform her duties as a domestic without inconvenience. The speaker thought a comparatively simple operation would now effect a cure.

#### THYROIDECTOMY.

DR. C. H. TERRY presented a patient whom he had operated on at St. Mary's Hospital, July 21, 1906. The swelling in the neck was first noticed nine years ago and continued to enlarge until the time of operation. It did not cause any pressure symptoms, but the patient had lost weight and suffered from headache. Kocher's curved or collar incision was made and the gland exposed. The vessels were ligated and the isthmus crushed with a clamp and divided with the cautery. The wound was closed with silk-worm gut and a drain placed at one end. Union by first intention was obtained, except where the drain was placed, and at this point a small amount of thyroid secretion escaped upon the flap which probably caused the suppuration. A few days after the operation the patient suffered from severe headache, was very nervous and depressed. She was given three grains of thyroid extract three times a day, which gave her great relief. At the time of the operation the left lobe was considerably enlarged, as could still be seen.

#### LATE RESULT FROM REMOVAL OF THE GASSERIAN GANGLION FOR TRIFACIAL NEURALGIA.

DR. L. S. PILCHER presented a lady from whom, eight years ago, he removed the Gasserian ganglion for inveterate trifacial neuralgia. She was first operated on by him for neuralgia of the face in 1895, at which time he divided the second and third branches of the trifacial as they emerged through their respective foramina. She was free from pain for a year. At the end of a year the pain began to return and continued



to become more and more aggravated during the months that followed until, two years from the time after operation, her condition was as bad as before the operation. In January, 1897, she was subjected by him to extirpation of the Gasserian ganglion. The immediate effects of the operation were everything that could be asked for, as far as the relief from pain. There were no unpleasant eye symptoms following, barring a few weeks of paresis of the levator of the upper eyelid. There was, however, a very considerable degree of general nervous disturbance, which showed itself at the time of her being presented to the Society some five years ago as a fainting spell, which took place before the Society. Since that time, however, she has gone on and has remained perfectly free from her neuralgia, has increased in her general nutrition, has overcome to a very considerable extent the nervous derangements which she suffered from, having no longer the fainting and dizzy spells she displayed at that time, and she has successfully passed through the period of the menopause.

The operation was done after the method of Doyen, which consists in the formation of a sickle-shaped flap starting at the temporal ridge behind and passing forward and down nearly following the line of the temporal ridge to the zygoma, and then backward along the zygoma, and then slightly downward in front of the ear, the flap being turned backward, the temporal fossa being exposed, the pterygoid ridge being identified, and the brain being uncovered at the base, by taking away the bone as far forward in the zygomatic fossa as to the margin of the foramen ovale. In that manner the Gasserian ganglion and its branches are uncovered. The amount of trouble she now has, as far as lack of power in the facial muscles is concerned, is comparatively slight. There is a little paresis, a very slight dropping at the angle of the mouth. There is a very slight observable droop of the eyelid on the right side, and when she corrugates the brows there is a less marked corrugation upon the operated side. She has to be careful as to what she applies to the eye of this side in comparison with the other, from the fact that she has no sensation in the conjunctiva here and hence she has to be more careful in the manipulations of this eye. The zygoma is gone and the atrophy of the temporal muscles causes a depression in the temple of that side. There is a total lack of ordinary sensation upon the entire area which is supplied by the trifacial of the right side.

#### MARSUPIALIZATION OF THE FEMUR AFTER OPERATION FOR OSTEOMYELITIS.

DR. L. S. PILCHER said that the difficulties which surgeons have to contend with in cases of bone cavities resulting from operations for osteomyelitis are recognized by all. The difficulties in successfully filling such defects by blood clot and by bone chips, to the ordinary surgeon, were insuperable, he believed. Cases in which it is possible to convert such a cavity into a shallow canal, into which the surrounding soft parts can be inverted, filling it up, present very little difficulties, but when there remains a large and deep cavity, so situated that it is impossible to thus treat it, and if we are unable to master the technic of the bone chip or aseptic blood clot, then the condition of the patient is difficult indeed. Such was the case in the man he presented, who, after 40 years' experience of an osteomyelitis with an expanded lower extremity of his femur, finally came to operation at the Seney Hospital some two years ago. At this time the larger part of the expanded epiphyseal lower extremity of his right femur was the seat of a chronic osteomyelitic process, and in the attempts to remove the diseased bone and leave behind one that would be healthy, this portion of the femur was converted practically into a hollow shell. At that time an attempt was made to invert the soft tissues about by taking away as much as was possible of the overlying bone, making a shallow gutter, and a very considerable degree of success attended that effort, but notwithstanding that, there still remained a very considerable concavity at the end of the femur which had to be dealt with. He has repeatedly attacked that during the past eighteen months by turning in flaps of skin from every point which seemed to be available for the purpose, after having refreshed the bone surface that was exposed, so as to give a healthy surface upon which to make a plastic transplantation. Finally he had succeeded in carpeting the entire surface of this cavity with skin; this cavity now presented itself as a pocket running down into the articular end of the bone, which is entirely covered with skin, a condition which he thought warranted the name which he had given to it as "marsupialization of the femur."

#### POST-OPERATIVE ACUTE DILATATION OF THE STOMACH.

JOHN C. MACVITT, M.D., read a paper with the above title, for which see *New York State Journal of Medicine*, July, 1906.

*Discussion.*

DR. J. FUHS said that this was a subject with which he happened to have an experience within the last month. He saw a lady who had been operated on for ventro-fixation of the uterus. She was otherwise in good condition he was told, and the day after operation she began to vomit small quantities of green fluid, and this continued with increasing prostration for a couple of days before he saw her. She then had a very rapid small pulse, an anxious expression of the face and an enormously dilated stomach. He advised the introduction of a stomach tube, and a small pail full of greenish, very acid fluid was removed from the stomach. The stomach was thoroughly washed out, and she improved a little. The fluid reaccumulated, she was again washed out, but died after twenty-four hours. The nurse was astonished at the depth to which the tube had to be introduced. She said it was fortunate she had a long tube. The stomach almost reached down to the symphysis; in fact, he thought the whole abdomen was filled by the stomach. The pyloric end must have been open; there was a large quantity of bile in the stomach; the cardiac end was thoroughly open; she brought up quantities of fluid and still she retained a large quantity of fluid. There is no other explanation, but that there was a muscular atony, and that through nervous influences this atony must have been brought about. The pneumogastric is the only nerve that could be made responsible for that, according to physiologists, but still there is perhaps another possibility. It seemed to him that weak condition of the heart and the gastric atony might be due to reflex disturbances from the pneumogastric. The vomited fluid not only contained bile, but also a large quantity of hydrochloric acid. The secretion therefore had been continued in spite of the atony of the muscle. This is of importance, because treatment could influence the secretion.

A second case occurred very recently. This lady was operated on a week ago. The operation was a fixation of the kidney and the removal of the appendix. She was in good condition before the operation. Besides the movable kidney she had a moderate ptosis of the stomach. Her pains were those due to a tender, displaced kidney. The operation was rather difficult, there was a small space only between the lower border of the ribs and the crest of the ilium, and the kidney could not be pushed out.

The appendicular operation was a simple one. The appendix was long and congested. She did

well for one day. Then she began to vomit large quantities of greenish fluid, and rapidly the stomach became distended, especially upwards. She looked anxious. In that case he gave her belladonna in increasing doses, and it seemed to reduce the secretion. Anyhow the distention went down, and he pushed the belladonna still further, and by the next day there was an improvement, and in a couple of days the whole difficulty was practically over. She did not take any food by mouth during that time except a little hot water off and on.

DR. R. S. FOWLER said that this condition was a dilatation not only of the stomach, but also of the duodenum. Müller, in the *Deutsche Zeitschrift für Chirurgie*, in 1900, described this condition. Müller had several cases, the majority of which died, and at autopsy it was shown that the duodeno-jejunal juncture had overlapped the superior mesenteric artery in such a way as to produce an obstruction at that point. This is probably the only cause in these conditions, but it may happen that through change of position of the patient or through relief of the dilatation of the stomach, that the mechanical position of the parts will change, and that, therefore, at autopsy nothing will be found except a relaxed condition of the stomach and duodenum with a ribbon-like condition of the remainder of the small intestine. This condition of dilatation, without the actual mechanical condition being demonstrated, is due to a secondary paresis of the stomach and duodenum. It is not a primary condition, nor does ever paresis of the intestine occur as a primary condition. It is always a result either of a toxæmia or follows mechanical conditions or is due to thrombosis at the root of the mesentery.

The speaker said that he had seen six of this class of cases, two of which did not recover. In all of these the symptoms had been progressively the ballooning up of the stomach, which in the first case was not recognized until very persistent vomiting had occurred; a lack of distention of the rest of the abdomen in the early stages and a gradually increasing distention in the later stages, *i. e.*, as the size of the stomach increased the distention increased. It has been his habit since knowing of the condition to order at once an investigation of the epigastrium in every case of persistent vomiting, and in the four cases he had diagnosed and which had recovered it had been due to the fact that as soon as the house surgeon spoke about the persistent vomiting, he ordered the dressings removed and the



mapping out of the stomach. In these four cases the mapping out of the stomach revealed the dilatation, and lavage was resorted to and the cases cured. Unfortunately, however, in these cases it is not often so easy to recognize the condition.

As to the vomiting: in the cases which have fecal vomiting, he should say that the obstruction or paresis, the result of toxæmia, was not at the duodeno-jejunal junction. In partial enterocele we get as a final result not a mechanical obstruction of the bowel, but a paresis which is localized to that portion of the intestine in the neighborhood of the partial enterocele, and we get a condition like that in those cases where the intestine is thrown across the superior mesenteric artery, if it persists long enough.

Regarding treatment, the speaker failed to see how a gastrotomy would be of any value when one can procure a long enough stomach tube. The position of the patient, he thought, has much to do with the relief of the mechanical conditions present—first, the persistent washing of the stomach; second, the placing of the patient in such a position as will cause the contracted coils of intestine to gravitate towards the upper part of the abdominal cavity and so aid in relieving the mechanical condition at the duodeno-jejunal juncture.

DR. R. W. WESTBROOK said that he could not refrain from congratulating Dr. MacEvitt on the very excellent judgment shown in the treatment of this case at the critical moment. He had wondered if it were possible that the observation as to fecal vomiting was not a mistake. He could not understand how fecal vomiting could be present in a case of this sort, the dilatation, as Dr. Fowler had stated, being of the stomach and duodenum only and stopping usually at the line of the superior mesenteric artery. However much that might be a cause or one of a number of causes, still, as Dr. MacEvitt had stated, the bowel below that was so collapsed that it could be covered within the compass of one hand, and in such a condition of affairs it seemed to him that fecal vomiting would be absent. He thought one of the strong lessons of this thing is, that we should use the stomach tube as a matter of routine more frequently than we do. It occurred to him that this condition must be present frequently in minor degrees. We have all seen how washing the stomach entirely clears up symptoms apparently of intestinal obstruction, and it seemed to him the explanation might thus be explained. He had felt very strongly against

the feeding of laparotomy cases, although this is a condition which does not affect necessarily post-operative cases, but is found in other conditions, as anemia and other diseases not surgical. He felt that perhaps we feed our laparotomies too soon. Mayo Robson reports a case where a girl ate an apple on the twelfth day after laparotomy, and it was followed by this acute dilatation of the stomach and duodenum. Dr. Westbrook thought more starvation, less fluids by mouth, and the use of large saline enemas, and the more routine use of the stomach tube when there is persistent vomiting, not readily explained, are the best treatment. After a few hours the stomach should be thoroughly cleared out in such cases, preventing the dilatation which may follow, and which in the minor degrees can be readily recovered from.

DR. J. D. SULLIVAN said that it had been a question in his mind whether this acute dilatation of the stomach is a new disease coming on the patient at the time, or an exaggeration of a chronic dilatation of the stomach which had preceded the operation. It was his opinion that dilatation of the stomach is quite frequent, and especially is it frequent in patients of a neurotic temperament or patients in whom there is some depressing influence on the nervous system. He thought many of our cases of indigestion are accompanied with more or less dilatation of the stomach, due either to a nervous origin or to a toxemia resulting from an intestinal fermentation or intoxication. He believed dilatation of the stomach is quite similar to paresis of the intestine that we frequently get, not only after surgical operations, but in medical cases, as pneumonia, or in those cases in which we have a high degree of toxemia, causing not only intestinal paresis but more or less dilatation of the stomach as well.

The speaker said he was particularly impressed with Dr. MacEvitt's case. She was nervous, and he should imagine dyspeptic, and the acute dilatation may simply have been an acute condition developed on a preceding disease. He believed her whole system was in a state of malnutrition, and he thought these cases are better treated by eliminants and nerve tonics, large quantities of water, and if necessary, diuretics, or and drug that would dissolve the toxins in the blood and eliminate them.

DR. W. C. WOOD said that in addition to the class of cases that Dr. Sullivan had mentioned, he would like to say that two days ago he operated on a strong, healthy mechanic. He had been sick four days with acute appendicitis, and the speaker removed a gangrenous appendix with

a localized abscess. On the following day the man was in perfect condition. He was allowed considerable fluid. At six o'clock of that day he started to vomit, and vomited during the whole night. Thursday morning there were three pus basins full of greenish vomitus that he had brought up. His temperature was  $99^{\circ}$  and pulse 76. His abdomen was distended in the upper part. The interne washed out the man's stomach, and said he removed over a gallon of fluid, and he washed the stomach repeatedly until the water came away clear. Then all fluids were restricted, and the patient has not vomited since. The temperature is still down, the bowels have moved in response to enemas, the pulse has continued to remain in the 70's. He considered this case an early type of the condition that Dr. MacEvitt had so thoroughly described. There was no sepsis here that could be determined, and the simple lavage had removed an immense amount of fluid from the stomach, which must have been much distended to contain that fluid. It immediately relieved and stopped all the symptoms.

The speaker added that we have all seen cases of the type described by Dr. Sullivan. He recalled one in Bellevue Hospital, a neurotic woman, the first case of this kind that he ever saw, where Dr. Hartley removed an ovary only. The woman ultimately died. He performed an autopsy and found a collapsed intestine and dilated stomach. The speaker said that we had all seen cases due to the causes advanced by Dr. MacEvitt rather to any theory of sepsis.

DR J. C. MACEVITT, in conclusion, said that the point of greatest interest is the early recognition of this condition. He believed that after the stomach reaches a certain size it is unable to regain its tonicity. The fact is illustrated by the experiments of the German savant who narcotized the dogs showing that where there was some preceding disease of the stomach, or where toxæmia and sepsis were factors, the nerve tone of the stomach is left in such a condition that it is unable to regain its tone after distention, whereas where these conditions do not exist, the stomach may be artificially dilated to such an extent as found in diseased conditions, and yet recovers its tonicity on the dilation passing away through the removal of its contents.

The chief thing to bear in mind, he said, is the characteristic vomiting and the retention of food at times between the vomiting intervals. He added that one does not find such a condition in peritonitis or in intestinal obstruction. In peritonitis there is continual vomiting and dry retching, whereas these cases are marked by contin-

ual vomiting primarily, which ceases for a time and food is retained for hours. These are the points we should bear in mind, because they will be of greater aid in diagnosis than any other symptom.

It is not so easy as one would suppose to make out a dilated stomach. It is easy where the abdominal walls are thin, but with a patient in whom the abdominal wall is thickened with fat it is almost impossible to differentiate between that and other causes of distention. In most of the cases in literature the mistake invariably was made to regard it as a case of peritonitis or intestinal obstruction, and the operators opened the abdominal cavity for that condition, and in only two cases were such conditions found.

CHOLECYSTECTOMY FOR OCCLUSION OF THE GALL-BLADDER: (A) WITH DILATED GALL-BLADDER. (B) WITH CONTRACTED GALL-BLADDER.

DR. R. W. WESTBROOK presented several specimens. The first that of a dilated gall-bladder which had a single stone in the cystic duct. It was acutely inflamed. The gall-bladder had no bile in it, as it had been obstructed for some time. It extended below the level of the umbilicus, and in manipulating the gall-bladder he worked back the single stone from the cystic duct, and found a very good, patent cystic duct. He thought that was a gall-bladder that might have been left, but because there were adhesions all about it he took it out. He also showed another specimen of a contracted bladder which he thought should be taken out. What he wanted to emphasize is that in these cases where there are so many adhesions about the gall-bladder the cystic duct is often patent, and in that case the patient is better off with the gall-bladder out.

The speaker showed another specimen of a dilated gall-bladder, in which the cystic and hepatic ducts were filled with stones. This was interesting in so far as it was an exception to Courvoisier's law, that in an obstruction in the common duct due to gall-stones there is a contracted bladder. This was a very much dilated gall-bladder. He cut off half of it. It was shrunken down about the pylorus and elsewhere. The consulting physician was willing that it should come out, and so he removed it, and removed it with the knowledge that he had left one stone in the hepatic duct high up. He felt a stone in the right main trunk of the hepatic duct, which he allowed two of his assistants to feel in situ, and then when he went after it again he could not get it, but he knew that there



was a stone of moderate size high up in the hepatic duct, and he was sure it would come down in the common duct. He drained the common duct with 1½-inch rubber tubing, so he felt positive he would get that stone in his large rubber tube. He thought in common duct cases the gall-bladder may be safely removed if one is positive that he has a patent duct leading into the intestine, and if the gall-bladder is one of the kind that he had mentioned, with many adhesions about it, it may cause dragging pain and trouble later.

The speaker said he still believed that cholecystectomy as a routine measure is a good thing. The speaker had, however, seen cases treated by cholecystectomy in which he did not think it was called for, as the gall-bladders were healthy.

#### SUPPURATIVE PANCREATITIS.

DR. W. C. WOOD reported the case of a lady, aged 50, whom he saw June 22, 1903, in consultation, and obtained the following history: Her previous health was said to have been good. Three days before she had been seized with sudden pain in the upper abdomen, accompanied by marked collapse with vomiting, pronounced and repeated frequently for two days. There was complete constipation with abdominal distention. She had received morphine to relieve the pain. A diagnosis of intestinal obstruction had been made. (Fitz, of Boston, says this is a reasonable diagnosis in this condition.)

On examination he found a stout woman with moderate sepsis, poor pulse, slight jaundice and tenderness in the upper half of the abdomen. She seemed to be rallying from an acute local peritonitis; cause not clear, but, as it seemed to him, probably from the gall-bladder. He advised ice locally, stimulation and irritant enemas, which plan seemed safer than explorative operation. On June 30 he was again asked to see her, and found that the intestinal paresis and vomiting had promptly subsided, but moderate pain, temperature and jaundice had continued, and that now, even through the fat abdominal wall, a mass could be made out in the upper part of the abdomen extending to both sides of the middle line and tender on pressure. He now thought that he had a local abscess outside the gall-bladder, but originating therefrom.

On the following day at St. Mary's Hospital he made an incision through the right rectus, and found that the omentum presented countless

small white and pale yellow patches, size of a pin head, which always indicate pancreatic disease. On pushing the omentum and intestines to either side, a tense, swollen and much enlarged pancreas was found. This was walled off and incised. Some four or five ounces of bloody pus escaped and a half-inch drainage tube was inserted into the pancreas and brought out externally. This was surrounded by abundant gauze packing. Pus discharged freely for one month without constitutional symptoms and the wound required two months to heal. The speaker saw her in the fall of 1905. She is in excellent health, except for a hernia at the wound, which she has not consented to have cured.

The second case was that of a man 44 years of age, who was admitted to the Brooklyn Hospital April 20, 1906. He came in with delirium due to sepsis and alcoholism and had to be restrained. The history, as given by the doctor in attendance, was that four weeks ago the patient was seized with violent pain in the upper abdomen with vomiting and some collapse. For several days morphine was used freely. He soon developed a moderate jaundice and a temperature between 100° and 103°. Tenderness was present in the upper abdomen and some swelling appeared. This was considered to be the gall-bladder. During the four weeks the symptoms continued with varying severity, but the patient was constantly in bed until he was sent to the hospital by ambulance.

On examination the speaker said that he was unable to make a diagnosis. The alcoholism and sepsis were evident. The tenderness in the epigastric region was marked, but no well-defined tumor could be made out on account of the distention and fat abdominal wall. The blood count gave 21,000 white cells and 84 per cent. polynuclear. The urine examination showed albumen and casts; no sugar.

After three days' observation and believing that the patient was growing worse, an incision was made over the right rectus, expecting to find a septic condition of the gall-bladder. The fat necrosis of the omentum was noted. No peritonitis was present. Tearing through the gastro-hepatic omentum, the swollen pancreas was seen. An aspirating needle inserted into the body of the gland showed pus. An inch-long incision was made into the gland and a large drainage tube inserted. Around this was placed gauze strips giving free drainage.

The sepsis subsided, the tube is draining freely and the patient is apparently recovering.

# Brooklyn Medical Journal.

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## THE CREMATION OF BROOKLYN'S GARBAGE.

Brooklyn and all Greater New York has been seriously incapacitated this summer, in the matter of garbage disposal, because of the recent destruction by fire of the incineration plant at Barren Island. This has necessitated the dumping of a great part of it just outside the lower harbor. The resulting detriment to the nearby beaches has been noticeable, though by no means to the extent reached in former years. The rebuilding of the old plant is already well advanced, and it will soon again be at full working capacity. No reasonable objection can be urged against this plant in its old situation, notwithstanding a proportion of public opinion to the contrary. No spot more favorably situated for the most unpleasant features of a reducing plant, such for instance as the disposal of the city's dead animals, could well be found.

Dr. Doty, the Health Officer of the Port, has recently strongly objected to the present method of "trimming" the garbage scows, and with reason. Delaying the departure of the scows from the city's docks for the purpose of carefully sorting and collecting from it all otherwise salable materials is decidedly unsanitary. The present manner of delaying the starting of the garbage seaward for the purpose of sorting it more thoroughly is a menace to public health. The waste collected by the carts at the collecting stations

and docks should be promptly disposed of. Withholding the produce of the collecting carts within the limits of the city proper for the purpose of reclaiming its treasure trove has recently been carried to a degree which should incur severe criticism. To advise and direct the Italian contractors and sub-contractors the city needs a representative who shall instruct them regarding the sanitary aspects of their work.

Garbage becomes a nuisance—it may be a menace—from the time discarded portions of food are deposited in cans. From this moment every possible method of facilitating its passage to the cremating plants should be employed. Dr. Doty is quoted as stating his belief that each householder should burn his own garbage. We can scarcely agree that the need of immediate cremation of waste is so urgent as that, nor do we believe that the average cook is intelligent enough to perform a duty of this sort properly.

The number of incinerating plants should preferably be increased. They should be located as nearly central to the districts to be covered as possible, and they might be operated with so little offense as to prove no more deteriorating to a neighborhood than a well conducted stable or factory. In certain cities of Europe the cost of incinerating garbage by plans very similar to that just referred to is brought down to about fifteen cents a ton.

The new municipal incinerator of this borough, referred to in this column a few months ago, operated by the street cleaning department, has not been found to be a nuisance, and if it continues to be operated intelligently need never be.

The tall chimneys of an incinerating plant which discharge all necessary smoke at a well elevated point are far preferable to a method which involves its discharge from the kitchen chimney of the individual householder. The evil smell of a garbage can is a warning, not a peril. But ten thousand chimneys of Greater New York belching forth the smoke of partly consumed garbage would produce a befoulment of the atmosphere beside which any number of incinerating plants will bear no comparison.

Brooklyn has improved of late years in the matter of prompt collecting of garbage; it must improve yet greatly before the highest stage of efficiency is reached. She needs yet more improvement in the matter of prompt and direct conveyance of garbage to the incinerating plants and in the promptness with which it is subjected to firing once it has reached them.



## UNLIMITED WATER SUPPLY FOR BROOKLYN FROM NEW LONG ISLAND SOURCES.

The completion of the new pipe line into Suffolk County will afford sufficient new fields for the extension of Brooklyn's water supply for many years. As need for more water arises, new wells will be sunk and new pipes laid.

The new government publication, *Underground Water Resources of Long Island, New York*, shows that the water sources of the south side of the island are so extensive as scarcely to have been seriously tapped as yet. The deep ground water supply is practically unlimited, the bed rock underlying Long Island being but a continuation of that of the mainland.

The flow of ground water towards the sea has been measured with some precision. Impervious strata of clay overlaid by fairly coarse gravel form natural underground reservoirs, and wells driven to the clays usually produce an abundant supply of water. Breaks in the clay strata but short distances above the wells in the direction whence the flow of ground water comes naturally interferes somewhat with the supply of individual wells, as may also the occurrence of very fine sand, or quicksand, immediately overlaying the clay strata, since the fine meshes of the wire over the openings in the pipes cannot long keep out the sand, and the well soon clogs. Such spots have soon to be abandoned or new wells sunk near by, but nearly all the wells yield abundant and permanent supplies of pure water.

Sand and gravel through which the water must percolate to reach the lower levels make excellent filtering material, and risk from organic impurities reaching these levels is practically eliminated. Some wells may be driven where the water yield is too rich in mineral constituents to be employed for drinking. These have to be discarded or their waters devoted to other purposes.

Should it be found that the water from certain deep levels becomes easily the medium for abundant growths of organic life, such water will probably need to be stored in reservoirs for a time, exposed to the sun or possibly supplied with cultures of opposing organisms.

It is matter for congratulation that the city of Brooklyn may be so readily supplied with abundant quantities of deep well water and to the extent of practicable illimitability. The greater quantity so obtained is suitable for immediate use; while some, not at once potable, may be made so by storing, or may be discarded.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Drs. Polak and Pomeroy, with their families, sailed August 4th for Europe, intending to tour Switzerland.

Dr. Charles P. Frischbier has removed to 1228 Putnam Avenue.

Dr. John Kepke, of East New York, sailed for Europe with his family about July 1st. His object is recuperation and study, his ultimate destination being Vienna.

Mrs. George Edgar Biddle announces the marriage of her daughter, Florence Stevens, to Dr. James Cole Hancock, on August 18, 1906.

Dr. Robert E. Coughlin, of Brooklyn, has collected statistics of fatalities in games during the year 1905. He finds 78 in all, of whom 28 died from football, 12 from baseball, 9 from horse racing, 6 from boxing and 3 from gymnasium work. The rest were not more than one or two of a kind. Of the football players killed 17 were high school boys. Dr. Coughlin has also collected facts as to deaths of men who had been athletes, but died supposedly natural deaths. There were fifty such cases. He found that more than the average percentage had some affection of the heart, thus differing from about the same number of Yale graduates reported on some time ago. This Yale list dated back to 1851, and only two of them were declared to have suffered from heart disease. In short, two groups of men whose experience might be expected to be nearly alike showed great diversity on the one point which has been especially in question.—*Exchange*.

"We can well believe that certain tobaccos are more poisonous than others, but we very much doubt whether substances more injurious than tobacco itself are ever added to the manufactured leaf. Flavorings and sweetening substances, such as licorice, glucose and glycerine are often added, but these are harmless compared with pure tobacco itself. Statements have been freely made that morphine or even cocaine is added to cheap cigarettes in order to give them immediate soothing qualities or 'to soften' the flavor of an otherwise harsh smoking tobacco. We

cannot accept such statements applied, at all events, to cigarettes retailed at five or even six penny. The tobacco in such cigarettes is of an inferior and inexpensive kind, we admit, but we have not been able to find the smallest trace of foreign poisons in some very cheap cigarettes which we purchased only recently and submitted to careful analysis. We doubt whether it would pay to add such comparatively expensive poisons. Opium is not cheap, nor is cocaine. Tobacco of common quality is at any rate infinitely cheaper. The danger of smoking arises from tobacco poisoning, and it is the wholesale and unchecked poisoning of the child with tobacco, chiefly in the form of cigarette smoking, against which the nation is asked to find a remedy. On what lines such a remedy can be made effectual we are not sure. It is obvious that different persons exhibit a different susceptibility to the poisonous action of tobacco, even in the same country. In Oriental countries, however, excessive smoking, which is intensified by inhaling the smoke, commences almost from the cradle and is continued right through life apparently without any ill effects."—*The Lancet*.

### BOOK REVIEWS.

THE PHYSICAL EXAMINATION OF INFANTS' AND YOUNG CHILDREN. By Theron Wendell Kilmer, M.D. Phil., F. A. Davis Co., 1906. xii, 86 pp., 1 chart. 12mo. Price: Cloth, 75 cents, net.

A very useful book for anyone who wishes to become systematic in the examination of babies. While it contains little that is new, it collects together and reminds one of what he often overlooks for lack of thoroughness. It is well illustrated and contains but 84 pages.

RADIOTHERAPY IN SKIN DISEASE. By Dr. J. Belot. With a Preface by Dr. L. Brocq. Translated by W. Deane Butcher, M.R.C.S. Only Authorized Translation from the Second French Edition. Lond., Rebman, Limited, and N. Y., Rebman Co., 1905. xv, 463 pp., 13 pl. 8vo. Price: Cloth, \$4.50 net.

There seems to be no limit to the making of books upon radiology. The one under review is excusable, for it is limited to radiotherapy in skin diseases, and will appeal to those physicians whose practice is dermatology.

The work is all it claims to be, a clear, concise and honest report of the present status of cutaneous radiotherapy, written by one who has carefully studied the effect of the X-ray, and under the supervision of a French master in dermatology, Professor Brocq.

This work will supplement others already published, for it gives details of technique, and elaborate quotations from workers in radiology.

A commendable feature of the work is that the space is given to the subject under discussion and not to the elaborate histories of cases. WINFIELD.

CLINICAL OBSTETRICS. By Robert Jardine, M.D., Edin., M.R.S.C., Eng., F.F.P. & S., Glas., F.R.S. Edin. Second Edition. Lond., Rebman, Ltd., and N. Y., Rebman Co., 1905. Col. front., xxvii, 609 pp. 8vo. Price: Cloth, \$4.75.

In this, the second edition, Jardine's Obstetrics has been improved and enlarged. Practically all the complications of pregnancy, labor and the puerperium are

dealt with. Comparatively little attention is given to the physiology of obstetrics. The author's views and methods are presented in connection with reports and discussions of cases.

Symphysiotomy is advocated for certain cases, but we are glad to note that it is reserved for pelvis of three inches or more c. v. with heads of typical size. Among the dangers of symphysiotomy is mentioned the hackneyed statement that imperfect union is likely to follow. In the 15 to 20 operations performed in Brooklyn the joint became solid in every case.

Cæsarean section in eclampsia and in placenta prævia is condemned.

Forceps delivery is carried out of course in the English obstetric position. The obstetrician is pictured standing behind the patient's back and pulling forward, as the head is about to be born, with his left arm reaching over the patient's body. To an American obstetrician this looks extremely awkward. It is not good teaching that the operator appears in everyday clothes with coat sleeves barely pulled up and without gown or rubber gloves. It is gratifying to observe that the tractors of the axis-traction forceps are used throughout the delivery.

While not intended as a systematic treatise on obstetrics, the pathology of the subject especially is well covered. To the obstetric practitioner the book will be found interesting and profitable reading. C. J.

CLEFT PALATE AND HARE LIP. By W. Arbuthnot Lane, M.S., F.R.C.S. Lond., The Medical Publishing Co., Limited, 1905. 63 pp. 4to.

The well-known method of the author in operating for cleft palate and hare lip is here given in detail, the text embellished with excellent photographs and drawings. The type is legible beyond criticism, its size generous to the dimmest eye. One can but wish that the manner of making monographs shown in this typographically perfect production were more general.

W. C. B.

MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-Book specially adapted for Students of Medicine, Pharmacy, and Dentistry. By W. Simon, Ph.D., M.D. Eighth Edition, Thoroughly Revised. Phil., N. Y., Lea Bros. & Co., 1905. Col. front., xvii, 17-643 pp., 8 col. pl. 8vo. Price: Cloth, \$3.00.

This volume, now in its eighth edition, is one of the most complete and comprehensive works of its kind. Part I treats of chemical physics. Part II, of the general principles of chemistry. Parts III and IV treat of the non-metals and metals in detail. Part V is devoted to analytical chemistry, Part VI to organic and Part VII to physiological chemistry. The Appendix contains tables of weights and measures, the table of the elements, etc. The work is profusely illustrated, the general discussion of the individual elements and processes is well treated and concise. This edition has been thoroughly revised and corrected so as to conform to the changes in the new Pharmacopœia.

W. S., JR.

A MANUAL OF CLINICAL CHEMISTRY, MICROSCOPY AND BACTERIOLOGY. By Dr. M. Klopstock and Dr. A. Kowarsky. Translated by Thew Wright, M.D. Lond., N. Y., Rebman, Limited, 1905. xv, 296 pp., 16 col. pl. 12mo. Price: Cloth, \$2.25.

This volume embodies the course in clinical chemistry, microscopy, and bacteriology as given in the "Institut für Medizinische Diagnostik," in Berlin.

The book is particularly intended as a guide for the practitioner, and assumes that the reader has had a course in chemistry and bacteriology. The book covers the ground intended very well for a work of its size, taking up the bacteriological examination of secretions and deposits of the mouth, pharynx, nose and conjunctiva; the general examination of the sputum, gastric contents, feces, urine and blood; the secretions of the prostate and urethra, together with the bacteriological examination of diseases of the skin. The last chapter includes formulæ for stains, culture media, etc.

W. S., JR.



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## ORIGINAL ARTICLES.

### THE HEMORRHAGIC DISEASE OF THE NEWLY BORN.

BY CHARLES H. GOODRICH,  
Brooklyn, N. Y.

Spontaneous hemorrhages in the newly born or the hemorrhagic disease of the newly born is a definite clinical entity, although the line of demarcation is difficult to discern in many writings concerning this and the other hemorrhagic conditions in infants. It should be considered not as a symptom, not as an indication of hereditary weakness, not as a variety of hemophilia, not as a result of syphilis in the parent (with possible rare exceptions), but as a definite disease of which the cardinal symptom and, in fatal cases, the direct cause of death, is hemorrhage not due to injuries evident. It displays a number of clinical peculiarities which render the diagnosis easy and offer to the observer a fascinating field for study. These are:

1. Its occurrence always during the first fourteen days of life, usually within the first five days.
2. The wide differences between it and the other well-known hemorrhagic disease, hemophilia.
3. The invariable tendency to self-limitation in time shown by all cases which recover, whatever the method of treatment.
4. The absence of any tendency to hemorrhage, in the recovered child, in subsequent months or years.
5. The variety of micro-organisms which have been cultivated.

The disease is present wherever multiple hemorrhages occur in the newly born without trauma and in the absence of obstructive cardiac or hepatic disease. The old time "Melena Neonatorum" is but a symptom and not a separate condition, perhaps the only symptom (as in one case which follows). "Infantile menstruation" is often another symptom, although this may occur in the absence of the hemorrhagic disease, and multiple subcutaneous ecchymosis appearing many hours after birth, asynchronously, should not be called "purpura."

## OCCURRENCE.

Rare as it may be, few physicians fail to observe this disease. Its frequency has been variously computed. Taking into consideration the occasional mild case which eludes detection, we may conclude that among every thousand births spontaneous hemorrhages will occur in from two to five of the infants. (The extreme percentages deducted from a study of many series of cases are  $1\frac{1}{2}$  per cent. and 8 per cent.) Males and females are affected in nearly equal number, although females are in the majority in the collection of cases made for my study of this subject. This is in bold contrast to the proportionate occurrence of hemophilia (12—15 males to 1 female). Those effected are invariably infants between two and fourteen days old.\* This contrasts again with hemophilia which rarely, if ever, occurs before the latter part of the second year of life. (Grant cites an instance which certainly seems to be an important and interesting exception to this rule of age. In her first labor his patient was delivered of a healthy male child in May, 1897. On the second day of life a severe gastro-intestinal hemorrhage occurred, rapidly exsanguinating the infant who died eighteen hours after onset. No autopsy was allowed. During the succeeding five years this woman bore two healthy female children who thrived. In June, 1903, Grant delivered her of another male child who suffered a furious intestinal hemorrhage on the third day and died after twenty-four hours. In this mother's family all male relations were subject of frequent profuse epistaxis. Moreover, an infant son of her brother bled profusely from stomach and bowels on the second day of life, but recovered. In none of these cases did fever appear. Grant classifies these cases as belonging to the "hemophilia" type of hemorrhagic disturbances. They are the only cases found in the recent literature in which this claim could be reasonably offered.)

*Prematurely born infants* and those who are poorly developed seem to be affected with the hemorrhagic disease somewhat more frequently than healthy specimens, when the preponderance

\*The statement is made in one text-book that this disease may appear as late as the fourth or fifth week. No authority for this is cited and no recorded case has been found.

of the latter type at the time of birth is considered.

Hospital records show a greater proportion of these cases than do those of the private practitioner, although it will be noted that the mortality is greater in private homes than in hospitals.

Epidemics of this disease in hospitals have been reported, and in two instances isolation of the cases apparently caused immediate cessation of its spreading.

#### CLINICAL EVIDENCES.

The earliest symptom is hemorrhage. It may begin on the second day of life or on any succeeding day up to the fourteenth. The common days of onset are the third, fourth and fifth. The first hemorrhage may be slight or excessive, nor can it be looked upon as any indication of the severity of the case, save where it is very profuse and constant. The location of the bleeding point (or points) is variable. Most commonly it is in the colon, stomach, small intestine, or at the umbilicus. Hemorrhage from the colon is always scarlet, whereas a tarry color is characteristic of blood from above the ileo-cæcal valve. (Stools containing this old blood are often overlooked by nurses.) Epistaxis is quite common in these cases and ecchymoses into the skin and subcutaneous connective tissue are often observed, nor has it been found that parts exposed to pressure or friction are affected more commonly than others. The importance of remembering the superficial ecchymoses becomes evident when we think of how often these are interpreted as signs of violence.

Tiny wounds, such as scratches inflicted by the infant's finger nail, tend to bleed persistently in spite of the usual efforts at hemostasis. Hemorrhages have also occurred into the scalp, the conjunctivæ, the ears, the mouth, the throat, the meninges, the cerebral cortex, the thymus gland, the trachea, the bronchi, the spleen, the liver, the kidneys, the suprarenal capsule (Spencer's case), the pleura, the lungs, the pericardium, the peritoneum, the uterus, and the urinary bladder. Whatever the locality or localities, frequently recurring small or moderate hemorrhages are more common than profuse or continuous ones. Profuse hemorrhages are most frequently intestinal, although the epistaxes may be excessive, and large amounts of blood may be vomited. In rare instances tremendous hemorrhages into one or more of the serous cavities have been demonstrated post-mortem.

Accompanying and following this cardinal sign of trouble come the usual symptoms of hemorrhage. The pulse increases in rapidity and declines in strength, the degree of changes depending upon the amount of bleeding and its relation to the strength of the infant. Pallor is usual and many times extreme. Dyspnoea is common. Restlessness is present in nearly all cases, probably due to thirst for water and oxygen, and extreme distress is recorded in some instances. Coolness of the surface and shaking from chilliness are often observed. Diarrhea is a common symptom and is regularly present when "melena" exists. Icterus is often mentioned as a common accompaniment of this disease, but after scanning all of the recent literature one is inclined to adopt Holt's view that "Icterus is not more common than in other infants." Convulsions occur in the most serious cases and are usually seen but a few hours before death. The temperature is not characteristic and every kind of variation is reported. One or two degrees of fever are common (vide case 2). Very high temperature records (103°, 104°, 105° F.) are uncommon, but have occurred. Sometimes the temperature is subnormal as is my own Case 1, a report of which is offered at this time.

CASE 1: A. K., female, was born on the evening of December 10, 1904. She was the third child of exceptionally healthy and robust parents. Labor was four and one-half hours in duration and normal in every particular. The second stage occupied but ten minutes. She cried lustily before the chest was born. Her weight was nine and one-half pounds and she was apparently healthy in every particular. There was an excessive amount of vernix caseosa. Immediately after delivery the eyes were cleansed with saturated solution of boric acid, followed by the instillation of two drops of a one per cent. solution of silver nitrate. The mouth was cleansed, the nares "blown out" (gauze intervening), and the entire body was anointed with vaseline. When pulsation had ceased the cord was tied about four inches from the body, and clamped one inch toward the placenta, and severed between ligature and clamp. After the delivery of the placenta (without manual efforts at expression) and after the certainty of uterine contractions, safely vigorous, had been determined, the cord was again severed two inches from infant's body, carefully stripped and retied. In treating the cord only sterile instruments and tape and surgically clean hands were used. The stump of cord was dressed with powdered boric



acid for twenty-four hours and thereafter with the compound stearate of zinc with boric acid. (These details are mentioned because of the importance attributed to infection in these cases). The labor was conducted by the writer in a well-managed hospital where he frequently performs cœliotomy and other major operations and acts as accoucher, with no case of wound infection or post-partum fever recorded within the four years preceding the writing of this report.

On the third morning of her life the babe inflicted, with a finger nail, a minute wound of about one millimeter over the left malar bone. To this our attention was called about one hour later, and up to this time it had bled slightly but persistently. Alumol powder was applied without effect, and a few hours later a compressing bandage was ordered. In the evening there was a small epistaxis, and on the following morning blood was found in the stools and hemetemeses occurred. Appropriate treatment was prescribed (detailed below) and the infant watched carefully. Epistaxes and hemetemeses were repeated, and bloody stools continued on the fourth, fifth and sixth days. Thereafter no bleeding occurred, the child became normal in every particular, and promptly began to gain in weight. During the entire course of the disease there was no rise in temperature, the rectal thermometer showing an average slightly below normal. At no time was icterus observed. The pulse ranged from 120 to 148 during the course of disease and at no time was weakness of the heart action marked. The cord remained dry, did not bleed, nor was there the slightest degree of inflammation about it. Separation occurred on the sixth day leaving a healthy dry base which healed kindly. The loss of weight was one and one-half pounds during the first week.

The treatment of this case consisted in:

1. Absolute quiet and freedom from muscular effort. The nurse was instructed to keep her from crying. Feeding was accomplished by withdrawing milk from breast and administering it with a spoon or minim dropper. Bathing was interdicted. Any tendency to restlessness was treated by the administration of two or three drops of camphorated tincture of opium, sometimes every two or three hours.

2. Conservation of heat. The room was kept at 80° F. The baby was wrapped in cotton and warmly covered, and when the extremities became at all cool hot water bags were applied. Twice daily the skin of the entire body was anointed with the oil of sweet almonds.

3. Administration of a direct hemostatic or astringent, limited to the exhibition of an emulsion of Bismuth Subgallate.

4. Administration of indirect hemostatics, limited to the exhibition of the Fluid Extract of Ergot Miii every two hours on the first day, then every three hours. This child is now ten months old, is healthy, ruddy, strong and weighs twenty-one and one-half pounds. Deficiency in the quality of milk supply at two months caused a slight gastro-intestinal disturbance, but aside from this no illness has affected her since the seventh day of life.

In mentioning hemorrhages from the bowels it was noted (*vide supra*) that the tarlike stools are not always recognized by our nurses as significant. This was demonstrated in my second case.

CASE 2: H. S., female, a second child, was born October 5, 1904. Labor was normal, except that the pains of the second stage were particularly strong, unremitting, and badly borne. Infant's father had always been healthy save for one attack of neurasthenia. During her pregnancy the mother suffered from a mild degree of albuminuria which disappeared at seven and one-half months. Three hours after labor muscular twitchings, pulse 140, anuria, contraction of arteries, and stertor developed. No actual convulsion took place because of the prompt use of sedative and depletive measures, but four weeks of nephritis ensued, and, although recovery seems complete in other ways, albumin was still present in the urine at the last analysis.

The infant passed tar-like stools on the fourth day of life and continued to do so four to six times per day for four days. The nurse (of high qualification) did not perceive their importance and failed to report this condition until the seventh day when the stools were less frequent. At this time I prescribed an emulsion of Bismuth Subgallate. This apparently caused diminishing in the amount of hemorrhage, although the cessation of bleeding on the following day was probably due to the self-limitation common in this disease. The babe lost two pounds in weight during the first week of life. A prolonged period of gastro-intestinal fermentation supervened, but finally disappeared under a diet of sterile modified milk. Since this time she has been healthy save for a moderate tendency to constipation.

#### HEMORRHAGES IN THE NEWLY-BORN NOT DUE TO THIS DISEASE.

Traumatic hemorrhages, due to accidental in-

juries, sustained by the infant during labor, may be confused with the so-called hemorrhagic disease. These are usually due to the pressure and friction of maternal bony parts during prolonged or difficult labor, to forceps—application, version, or any breech delivery. The more common traumatic hemorrhages are:

1. Cephalhæmatoma.
2. Infantile apoplexy.
3. Sterno-mastoid hæmatoma.
4. Hemorrhages into abdominal viscera.

The last occur most frequently after breech-deliveries (Spencer). They often show no characteristic symptoms before death and the diagnosis remains in doubt until autopsy. Cases of breech presentation and mal-positions for which version is done also furnish the majority of the sterno-mastoid hæmatomata. Cephalhæmatoma usually follows a labor, the second stage of which is tedious and uterine contractions vigorous. Infantile apoplexy is observed most frequently after forceps deliveries, occasionally after breech extractions, rarely after normal labor. Many of these infants are still-born. Indeed, in a fair proportion of still-born children this lesion is found at autopsy. In the children born alive various paralyses are often seen at once; irregular breathing and feeble cry are common and convulsions occur in the majority although they may not appear for many days. Speedy death follows hemorrhage of any moment at the base of the brain. Considerable bleeding over the convexities of the hemispheres may not kill, but persistent alteration in the substance and function of the brain usually follows.

#### PROGNOSIS.

The mortality of the hemorrhagic disease of the newly-born varies from forty-five per cent. to seventy-five per cent. This estimate is based on reports of clinicians whose opportunities for observation have been large. Here and there a writer will report one, two, or three cases with one hundred per cent. of recoveries. These probably could be balanced by the unrecorded experiences of others where one, two, or three cases have occurred with one hundred per cent. of deaths. In the writer's study of the literature of the past decade he has collected 111 cases with sixty-two deaths (mortality fifty-four per cent.), including his own cases.

The cases in which copious hemorrhages are early occurrences usually die. Those showing slight bleeding at the start may develop profuse hemorrhages at any time. The course of the

disease rarely extends over three or four days. Thus hope for recovery may be reasonably entertained if no very copious hemorrhage has occurred within ninety-six hours of the initial bleeding. Occasionally the hemorrhages continue for five, six, or seven days, and one case of eight days duration is recorded. In Townsend's series (fifty cases) over one-half of the fatal cases perished within twenty-four hours.

#### PATHOLOGY.

The post-mortem findings are many, varied, and unconvincing. Scattered hemorrhages and blanched tissues are the most uniform evidences. In a few instances (about five per cent.) syphilitic manifestations have been discovered, the endarteritis (to be mentioned elsewhere) being the cardinal lesion. Ulcers of the stomach of varying dimensions have been described in a small proportion of cases. In 1874 Landau proclaimed the embolic gastric ulcer as the cause of hemorrhages from the stomach and intestine in newly-born infants. Ulcers of duodenum have also been described. Dusser found gastric or duodenal ulcers in nine instances in a series of twenty-four autopsies. Parenchymatous inflammations of the viscera have often been noted. Nicholson's case showed sclerosis of pancreas in addition to more usual findings. Congestion and softening of the gastro-intestinal mucosa, and extravasations into the muscularis and the submucous or subserous connective tissue have been recorded. There may be other extravasations on the surfaces of kidney, spleen, or liver. Ecchymoses are frequently found in pericardium, pleura, and peritoneum.

Hemorrhages into the brain substance and spread over the cerebral convexity are occasional findings, although intra-cranial hemorrhages found at autopsy, in newly-born infants in cases where multiple hemorrhages in other parts of the body have not occurred, are due to injuries received during birth.

As we pass from a consideration of the pathology to that of the etiology, my own Case 3, may be properly introduced.

CASE 3: For the history, the observation, and the autopsy on this case I am indebted to Dr. Charles E. Paine.

A. B., a colored male, was born on September 21, 1905. Labor was normal in every respect. Parents are both healthy. This was the mother's first labor and pregnancy was uneventful. No history of syphilis can be elicited. Infant weighed seven pounds at birth, was plump and seemed



normal in every particular. Bleeding from the umbilicus (at base of cord) began on the fifth day, and was controlled with difficulty and only for short periods, despite every attention, including digital pressure. On the sixth day there occurred profuse oozing from the roof of the mouth. This was partially controlled with adrenalin. Multiple ecchymoses appeared from the abdomen soon after primary hemorrhage. Diarrhea was a symptom, but no blood was noticed in the stools, which was probably an oversight (see autopsy notes). In the treatment practically the same means were adopted as in my own Case 1, save that adrenalin, locally and internally, was added and the umbilical hemorrhage was given the special attentions indicated. The infant died on the morning of the seventh day. Dr. Paine performed the autopsy nine hours after death and at my request Dr. Harris Moak accompanied us to conduct a bacteriological study.

#### AUTOPSY NOTES.

Body is that of a shrivelled, emaciated colored infant, slightly smaller than the average. The abdominal wall shows multiple subcutaneous ecchymoses. Mucous membrane covering the hard palate shows an ecchymosis, in the midst of which the bleeding point (above mentioned) was located. Upon incision the tissues are pale and bloodless.

Pericardium normal in gross appearance.

Heart normal in gross appearance.

Pleura normal.

Right lung shows multiple small hemorrhages into lateral portion of lower lobe.

Left lung normal.

Peritoneum normal.

Liver, kidneys and spleen normal in size, apparently normal.

Stomach exhibits numerous minute submucous ecchymoses, but no free blood in cavity.

Small intestines. There are multiple ecchymoses in the walls, beginning 24 inches above ileo-cæcal valve and increasing in size and number as we pass downward. There is no free blood in the ileum.

Colon. There are multiple ecchymoses in the walls of the large intestine, the canal of which contains free blood in moderate quantity. A necrotic spot in the midst of an area of ecchymosis in the upper part of the descending colon appears to have been a bleeding point.

Bladder normal in gross appearance.

Brain not examined.

Cultures were secured by Dr. Moak from:

1. The umbilical cord.
2. Heart's blood.
3. Liver.
4. Spleen.
5. The unopened colon.

In each instance two families of micro-organisms have been cultivated and the same in all cultures. One of these has been identified as the *bacillus communis coli*. The other is the *staphylococcus pyogenes aureus*.

(The complete bacteriological report by Dr. Moak will follow this paper.)

#### ETIOLOGY.

The etiology of the hemorrhagic disease of the newly born is clouded in a fascinating obscurity. Careful studies of the blood, secretions and viscera of infants have revealed the presence of bacteria in many instances. As yet no specific microbe has been found, although several observers have, for a time, claimed that such a discovery had been made. That the disease is infectious in many, if not all, instances, is the generally accepted view to-day. Cases, in which no chance of infection from without is discernible, are frequent and lead us to theorize concerning the introduction of bacteria during the passage of the child through the mother's pelvis. The variety of bacteria cultivated from various vaginæ (healthy and unhealthy) might be found, after elaborate studies to correspond with the variety found in the blood, secretions and viscera of the affected infants. If we consider this with the following facts, an etiologic theory might seem to be developing:

1. There is less fibrin in the blood of newly born infants than in later infant life. (Jacobi.)
2. The structure of the blood vessels at birth is exceedingly delicate. It should be remembered, however, that we have no proof of a vulnerability of intact mucous membranes and skin to bacterial invasion in the newly born. Hence, with our knowledge concerning this in the older child and adult we must consider that a wound of entrance is a *sine qua non*.

The bacteria which have been isolated in connection with this disease are as follows:

1. *Streptococcus pyogenes*.
2. *Bacillus pyocyaneus*.
3. *Bacillus communis coli*.
4. *Diplococcus pneumoniae* (Frankel).
5. *Bacillus Gartner*.
6. *Bacillus ærogenes lactis*.
7. *Staphylococcus pyogenes aureus*.
8. An organism which seemed to be Friedlander's bacillus.

Kilham and Mercelis seemed to discover a new germ in a group of cases studied. It was similar to the *Diplococcus pneumoniae*, but inoculations did not produce hemorrhages in animals.

Klebs found micro-organisms at autopsy in nine cases and cultures from these (Gaertner's bacillus) injected into guinea pigs caused hemorrhages. (Gaertner's bacillus resembles closely the *Bacillus typhosus* and the *Bacillus communis coli*.) Baginski's case occurred in an infant about whose umbilicus a suppurative cellulitis existed. The *Streptococcus pyogenes* was obtained in pure cultures from many parts of the body. Newman records two cases in which bacteria were found and cultures obtained. In the first *Bacillus pyocyaneus* was located in body fluids, in mucous cavities, in the liver, and in the spleen. In his second case streptococci and staphylococci were found in the internal viscera. Dungern attributed his case to a short thick bacillus similar to Friedlander's, and suggests a causative relation between three cases of pneumonia in children occupying the same room and the occurrence of the hemorrhagic disease in the newly born infant. Abt reports a case due to sepsis (streptococci) and another infected by *Bacillus communis coli*. He remarks: "It is not probable that any specific micro-organism will ever be discovered." Nicholson's case was studied most carefully. Three bacterial families were isolated from cultures, namely, *Staphylococcus pyogenes aureus*, *Bacillus aerogenes lactis*, and *Bacillus pyocyaneus*. The virulence of all three were proven by experiments on guinea pigs. This author reminds us that the *Bacillus pyocyaneus* has been associated with other hemorrhagic conditions.

Blood examinations fail to reveal morphological or chemical alterations of significance, save for the proportion of fibrin already cited.

Turning for a moment from the bacteriology of this disease, it is in order to mention the "contributing causes" which various observers have considered worthy of attention.

1. Premature birth of the infant, for a considerable portion of cases, has occurred in these babes.\*

2. Prolonged and difficult labors.

3. Precipitate labor (?)

4. Syphilis, a parental history of which has been gleaned in a small percentage of cases. In some instances a typical endarteritis affecting small arteries and capillaries has been demonstrated. (Mracek.)

5. Septicæmia in the mother (possible in a few cases only). This is probably a coincidence, rather than a cause.

6. Anemia in the mother (a doubtful element).

7. Eclampsia or acute Bright's disease in the mother has been credited as a contributing cause. (vide case 2).

8. Tuberculosis in the mother (?)

9. Von Preuschen believes that pressure injuries to the cerebral peduncles cause this disease by interfering with the mechanism of the vasomotor centre. He produced multiple hemorrhages in rabbits by puncturing the cerebral peduncles and entering the third and fourth ventricles.

10. Ligation of the umbilical cord previous to the cessation of pulsation.

11. Delay or difficulty in establishing respiration.

12. "Idiopathic hemorrhagic diathesis" a prodigious cloak for ignorance.

Chiming with the known bacteriology of the disease come the following contributing causes:

1. Infected breasts, which may cause systemic infection in the suckling infant and so hemorrhage. (Jacobi.)

2. A maltreated cephalhæmatoma which suppurates.

3. Circumcision wounds are mentioned but no case reported.

4. Chronic vaginitis in the mother, especially when neglected or overlooked during pregnancy.

5. Minute abrasions or wounds upon the presenting part, inflicted by the nail of examining finger or by instruments.

6. Inattention or improper treatment of the cord. Certain it is that the average attendant upon cases of labor gives too little personal care to the cord.

7. Conjunctivitis.

After proper consideration of all the etiological elements suggested it seems most probable:

1. That this disease is due to one or more pathogenic (probably pyogenic) micro-organisms.

2. That the normal condition of the blood vessels at birth are responsible for the unusual manifestations of the infection (hemorrhages).

3. That any cutaneous or mucous wound, however trifling, may offer a gateway for invasion as in later life.

4. That in the absence of umbilical suppuration, stomatitis, or conjunctivitis, such trifling wounds are usually overlooked and the idea of infection scouted.

\*All of the writer's cases were in full-term children.



## PROPHYLAXIS.

Prophylaxis consists in the aseptic conduct of later pregnancy, labor, and the puerperium.

## TREATMENT.

Varied are the methods of treatment suggested for this disease. Prominent among the ideas advanced by many authors are stimulation and hæmostasis, direct and indirect. The writer doubts if internal medicinal stimulation (such as alcohol in its various forms, caffeine, digitalis, etc.) are permissible in these cases. No hæmostatic has proven to be sufficiently reliable for great dependence.

In considering the treatment we should first think of general measures for increasing the little patient's power to resist infection, and withstand hemorrhage, and for diminishing the tendency to bleeding. Then special measures to check the progression of the cardinal symptom may be introduced.

1. In the beginning absolute rest should be prescribed with every muscular effort eliminated or minimized. Every means should be adopted to prevent crying (save those violent methods used by some such as bouncing, shaking, pounding, etc.) Nursing should give place to feeding by the minim-dropper or spoon. Where it is possible the mother's milk should be used unless a breast is inflamed or a general septicæmia is present. If the infant is restless two or three minims of the camphorated tincture of opium should be exhibited occasionally, every two or three hours if needed, unless respiration becomes alarmingly slow. We should never forget the great value of opium in acute hemorrhagic conditions.

2. Body-heat should be conserved in every possible way. The room should be kept at a temperature of 78° to 80° F. The child should be wrapped in cotton and hot-water bottles, sand bags, or thermalite bags laid about him if the extremities show a tendency to low temperature. The skin of the entire body should be gently anointed (not massaged) with olive oil or the oil of sweet almonds twice in twenty-four hours.

3. Great care should be taken to discover the existence of any wound or lesion, however slight, through which infection may have taken place, and to treat it on general surgical principles.

4. Gastro-intestinal hemorrhages may be favorably influenced by the administration of the Bismuth salts (preferably the subgallate) in emulsion, or the remedies having similar action upon the gastro-intestinal tract. For colon hem-

orrhages high enemata of a silver nitrate solution  $\frac{3}{8}$  per cent. were used by Johnson in a case which recovered.

5. Local hæmostasis may be attempted by the applications of astringents to any accessible bleeding areas, but often such application are ineffective. Perhaps the most satisfactory are pure silver nitrate and chromic acid. Digital pressure for long periods must sometimes be practiced.

6. The exhibition of indirect hæmostatics has been the line in which clinicians have largely experimented. The fluid extract of ergot has been offered as a contractor of the blood vessels and as a sedative to the voluntary muscles. Others prefer some form or derivative of suprarenal extract. Holt uses one grain of the saccharated extract every hour for six doses, then one-half grain every hour until twelve grains have been administered. Tuttle used adrenalin chlorid, in doses of five minims of the 1-1000 solution, every four hours. Champion employed the same dose every two hours. Holt believes that this medicine is of doubtful value except for its local effects upon the mucous membranes. Calcium chloride, fluid extract of hydrastis, tincture of the chloride of iron, and sulphate of iron have their advocates.

Sterilized gelatin, hypodermically injected, usually in two per cent. solution has been the subject of elaborate experiments in connection with many hemorrhagic diseases. Abt, Holtschmidt, Führman, and Döllner have administered this solution in cases of the hemorrhagic disease of the newly-born which have recovered. Holt-schmidt experienced five consecutive recoveries after losing seven of his previous fourteen cases treated by other measures. This is the most convincing record shown by this remedy. Abt's experience was partially satisfactory, but after experimenting upon normal children and rabbits with gelatin injections he concludes:

1. That sterile gelatin contains toxic products of some sort, probably ptomaines.
2. That there is no proof that the coagulability of the blood is increased by adding gelatin.
3. That it is difficult to determine the safe dosage for a newly born infant.
4. That the administration of gelatin by mouth should be heartily recommended.

The last suggestion seems to meet with general approval and some good reports have been found. Townsend's recent case (reported in July, 1905), recovering, after violent hemorrhages, during the administration of large amounts of gelatin by mouth, seems especially significant.

Taken altogether, the evidence which favors the use of gelatin is well worth weighing. In future cases I shall regularly exhibit copious amounts of this substance by mouth, and in all desperate-looking cases the injections will be undertaken. This does not imply the relinquishing of the general treatment above detailed, or the use of ergot and adrenalin to which I attribute irregular but positive values. In the use of gelatin under the skin, its sterilization should be conducted with special care and completeness. Tetanus has resulted in several instances where subcutaneous injections of this solution have been used, and the infectious quality of the gelatin determined.

*(To be continued in November issue.)*

### TUBERCULOUS OSTEITIS.

BY W. C. SCHOENIJAHN, M.D.

Because of their insidious onset and the difficulty of recognition in early cases, tuberculous bone lesions, particularly in children, command the interest of the general practitioner. The frequency with which other diseases are simulated, often permitting accurate diagnosis at a comparatively late date, must be admitted. To have a retro-pharyngeal abscess open spontaneously, and diagnose for us a spinal caries is unpleasant—yet I have seen it. To call a beginning Pott's or hip-joint disease muscular rheumatism is deplorable, yet it occurs. The fallacy of the "growing pain" has been responsible for serious loss of time. On the other hand, too great haste may lead to error in mistaking some other condition for tuberculous disease, and condemn our little ones to unnecessary torture. In illustration let me digress a little and cite a case:

T. N.—eleven months old. At ten months of age his mother noticed that her baby cried very much, particularly when handled, and persistently held the right leg flexed and everted. Efforts to move the limb elicited evidence of great pain and muscular spasm. The physician in attendance, a thoroughly qualified gentleman, after studying the case for a month, during which anti-rheumatic remedies were faithfully tried, felt the persistence of the condition justified his first assumption of early hip-joint disease. This he confirmed by consultation, and the parents were informed of the weary time ahead, plaster casts and possible deformity. On seeing this child one was impressed by its apparently excellent de-

velopment. Its tender age argued against tuberculous osteitis. The tenderness in the muscles was evident to the middle of the thigh, and best point of all, which had been overlooked before, the left leg muscles were also slightly tender.

There was no other evidence of scorbutus, but as the baby had lived on a well-known proprietary food almost from birth, a change was made to modified milk, orange juice and beef juice, and in three or four days all symptoms had disappeared. Here the first attendant should have remembered how rare tuberculous bone disease is before the end of the second year; the common period of its development being from the third to the eighth year of life.

A history of tuberculous antecedents or association with the disease is found in by no means a majority of cases, nor are previous lesions often discoverable. Injury may determine the site of the disease, but it should not be forgotten that most infants suffer a considerable number of bumps, so that on the appearance of any condition the parents can find some tumble to which to attribute the disease. The frequency with which the affection is seen in the three favorite locations is about as follows: Spine, 37 per cent.; hip, 34 per cent.; knee, 22 per cent. Without discussing the pathology of the disease, let us consider shortly the main points of early diagnosis in the three important localities. The later diagnosis is comparatively easy.

In caries of the spine any portion of the vertebral column may be attacked, the symptoms varying with the location of the lesion. Here early indications are frequently overlooked or misinterpreted. Remember that the pains caused by irritation of the nerve roots may be referred to various parts of the body, following the distribution of the spinal nerves. The peculiar rigidity and muscular spasm, nature's unconscious avoidance of pain, are early symptoms common to all types. Many patients attract attention at first by the assuming of some posture that relieves pressure upon the diseased vertebræ. In cervical disease the early pains are often referred to the side of the neck, or the occiput, and are of a neuralgic character. Slight torticollis, tonic spasm of the muscles of the neck, or pains such as above referred to should prompt a very careful examination of the spine in every case, for deformity occurs here much later than when the disease is lower down. Dorsal disease should be looked for in all cases of obscure intercostal pain and persistent pain in the epigastrium or abdomen. Lumbar disease often begins with pain



and lameness referred to the lower extremities, so that at first the hip is frequently suspected. Referred pains, though not so frequent as in the types higher up may be felt in the groin, loins, thigh, buttock or hypogastrium. As a rule, in all spinal cases the stiff attitude and gait are early symptoms, and rising from the floor is characteristically awkward. No matter how clearly the disease may be present at the hip, it is well to bear in mind the possibility of this being due to psoas abscess, and to carefully examine the spine. If the thigh is freely movable except in a position of extension one may exclude involvement of the hip-joint, and suspect psoas irritation. In the hip and knee the diagnosis of tuberculous involvement is as a rule not so difficult. In all cases of lameness or stiffness that persist, or after disappearing, recur, the possibility of osteitis should be kept in mind. It is sometimes puzzling to observe how the symptoms will disappear for a time only to recur. Bear in mind also the referred pain of hip-disease, usually located in the thigh or knee; also remember the "starting pains" occurring at night, which constitute the most characteristic features of early hip and knee-joint disease.

In all cases the indications when diagnosis is sure are for absolute immobilization of the affected parts. The various appliances for this purpose are too many for consideration, and it is a matter of individual preference as to how the parts are fixed, so that the patient may during treatment secure the benefits of fresh air, sunlight and agreeable diversion. In children, even when they are of necessity in a recumbent position, this should always be possible. Some spinal cases do best on the arched frame which removes pressure from the diseased bodies, but such cases can be carried into the open as part of the prescribed treatment. As a general rule, surgical interference is demanded in special cases where in spite of orthopedic treatment the disease has advanced to the worst stage, or where prolonged suppuration threatens life. Early excision of diseased joints gives results much inferior to mechanical and constitutional treatment. This suggests the question, however, whether tuberculous osteitis, even when treated under the most favorable conditions orthopedically, is ever really cured. Can we feel sure that the encapsulating of the foci of disease by our measures of fixation combined with constitutional and hygienic treatment constitutes a scientific cure? After a more or less prolonged treatment we feel our way by gradually dispensing with our fixa-

tion, and if the disease remains dormant with the use of the joint we are compelled to assume that we have done our best, secured a spine or a joint with the least possible deformity, and be content. At the same time we know the disease is not eradicated, but frequently lies a menace to the future welfare of the patient. With this in mind certain foreign operators have been removing the diseased areas in accessible joints, filling in the cavities with preparations of bone of various formulæ. The results are reported as very promising, the bone organizing. The idea appeals to one as a distinct advance, but can be used in but a limited class of cases.

To illustrate the matter of the difficulty of real cure I will give you a short history. L. B. is now eleven years old. Her mother died seven years ago of tuberculous pneumonia. One year later, at the age of five, the girl developed a tuberculous condition in the left knee. Three years of extension, during which the joint was once opened, resulted in the usual cure, with a joint that was movable through a limited arc, but still one that permitted locomotion with little lameness. Between eight and eleven she did well, her father using every intelligent effort to guard her against illness. She recently presented herself with a tubercular right knee, while the old condition in the left knee showed some signs of activity again.

There is a mortality to be considered in connection with the subject under discussion. About eight to ten per cent. of cases of tuberculous bone disease eventually develop meningitis. Amyloid degeneration from prolonged suppuration is a rarer cause of death.

Remember in conclusion the following points:

In examining for spinal caries do not expect to find tenderness on pressure over the spinous processes. Bear in mind that the disease is in the bodies of the vertebræ. Exceptions to this occur in adults, but in children the test is unreliable. Look upon all cases of Pott's disease as cases of broken back, and fix the spine thoroughly even in mild cases; remembering that deformity occurs not only from destruction of bone by tubercular disintegration, but also by the pressure of contiguous healthy vertebræ falling one against the other and maintained in this unnatural position by muscular spasm, a shortening of fibrous structures, etc. In cervical and dorso-cervical disease we must relieve the suffering vertebræ from the weight of the head, and this involves not only upward traction, but can be assisted by tilting backward of the head enough

to throw the weight upon the transverse processes. Consider that the disease itself extends over a period of from three to five years, and that even for a longer period it is wise to continue support to avoid compensating deformities. The use of the swing and plaster cast affords the best agent for the general practitioner, incorporating the jury mast in the cast where such an appliance is indicated. Complications are as a rule to be treated expectantly, avoiding the opening of cold abscesses. Aspiration gives the best results. Climate, hygienic surroundings, tonics, nutrients in abundance should be continued throughout all treatment. In hip-joint disease I wish to warn against improperly using your extension plasters. The adhesive strips should run as high as they can conveniently be applied, so as to avoid undue traction upon the knee-joint itself, otherwise a laxity and deformity at the knee is possible. As regards knee-joint affection just one word. One will see cases with carefully applied casts or well-made fixation apparatus applied to the affected limb, yet no provision made to avoid the use of the limb in walking. It appeals to me that the vertical jarring of the joint surfaces incurred by walking, even though joint motion is impossible because of the splint, must excite muscular spasm and cause an aggravation of the condition. It is our practice to put all knee cases on a modification of the Thomas splint, using the moleskin adhesive plaster extension as in hip cases, though not applied quite so high or with as much tension as in hip-disease, and the raised patten on the well side. In this wise the knee is protected in the best possible manner.

#### A CASE OF HYSTERIA DUE TO EYESTRAIN.

BY GEORGE M. GOULD, M.D.,  
Philadelphia, Pa.

In July, 1905, Miss A. B., of New York, consulted me, giving the following history: At the age of seven she began having chorea, affecting chiefly the left hand and left foot; it became so bad that she was taken from school. Upon ceasing to study the chorea disappeared at once. At the age of twelve "neuralgia pains" began in the left ear and extended to many parts of the body. Again in the spring she was taken from school, but the general pain, or neuralgia, continued until fall, when she was greatly reduced in flesh,—*"almost to a skeleton,"* was the report. She *"often cried for hours with the pain."* Several physicians were

consulted in other cities than where she lived, who treated her, each in a different way—by *"electricity,"* drugs, diet, etc. She slowly bettered but not, seemingly, because of any treatment, and without the cause of the disease having been discovered. In the spring of her fourteenth year she had *"rheumatism,"* i.e., a pain and stiffness of the right hip, so great that she could not walk. For two months she lay abed constantly. This coxalgia *"seemed to get well of itself."* School attendance was again, of course, discontinued. The next spring chorea of the left arm and left foot returned, so that *"she could not use them,"* and again she left school. For a year there was again improvement, but in the winter of her sixteenth year she broke her left arm by a fall; the arm was in a cast for eight weeks. While the arm was in the cast, in the kitchen one day, she dropped to the floor and became unconscious. She was carried to the lounge in another room, and it was about an hour before she recovered consciousness. She did not hurt herself in falling, her tongue was not sore afterward, and the next day she was as normal as usual. During the fall of this year she returned from school, lay down, and became unconscious, *"or nearly so,"* but *"every muscle of her body was jerking";* this lasted for about an hour. After these attacks she was *"very nervous and irritable."* There was now an attack of *"peritonitis,"* lasting for six weeks; during this time a trained nurse was constantly in attendance. Sometime after this she was greatly frightened by supposing someone was looking into her window, and again there was an attack of swooning. The tonsils were removed during this year. The girl was now sent to a sanitarium where she stayed for a month, returning in better health. During the next year there were no swoonings, but she was ill for three weeks with pain in her right side, called *"ovarian"* by the attending physician. The menses were *"suppressed"* for three succeeding months. There were now more normal conditions for a year or more, but in her eighteenth year, about Christmas time, pain in the back and occiput began and grew so severe that study was interfered with. These pains continued for several months, beginning about the time of the approach of menstruation, and lasting for five days afterwards. She appeared to be *"crazy"* sometimes, and hypodermics of morphine were frequently given by her physicians. For six months before consulting me the girl has eaten



no breakfasts, and little at other meals. She drinks no tea or coffee.

Upon coming to me the girl was found to be healthy-looking, weighed 148 pounds, but complaining that she had been having frequent "dizzy spells," lasting for a minute or more; she was easily tired; her pupils were abnormally large, but there was nothing otherwise abnormal about the eyes, except that the retinal arteries and capillaries were small and pale. All of her physicians, it was said, had pronounced her "a typical hysteric," and the mother and the girl constantly used this word to designate her disease. Urinalysis were negative.

Seven years ago she consulted a prominent oculist in a city of New York State, who ordered glasses; these she wore for three years, gradually leaving them off. Two years ago this oculist was again consulted. He ordered no glasses, but advised that she be sent to a sanitarium. The physicians in this sanitarium were awake to the possibility of eyestrain being the cause of such symptoms and sent her to me. I at once noticed that the girl habitually held her head tilted to the right, and her elocution teacher had many times tried to get her to hold it erect. This was explained by the axis of astigmatism in the right eye. The static refraction errors were as follows:

R—Cyl. 0.50 ax.  $167^{\circ}=20-50+$ . L—Cyl. 0.37 ax.  $180^{\circ}=20-50+$  with orthophoria.

This correction in spectacles was ordered for constant use, and +Sph. 0.87 added to the cylinders to be worn for all near work, because of subnormal accommodation. I do not think the amblyopia was due to the hysteria, but that it was the cause of the eyestrain, at least one of the chief causes.

Such an astigmatism, of course, if continuous during childhood, must produce lateral spinal curvature. There was found a slight dorsoright, lumboleft curve still mostly functional. Bending the body to the right showed rigidity of the lumbar portion of the column, tended to raise the left leg, and to bring on strain or pain in the hip-joint. Bending to the left produced none of these symptoms. Pressure on one vertebra in the middorsal region demonstrated great tenderness. There is slight kyphosis; the cervical spines are prominent. As proper orthopedic treatment was impossible to secure, the father not being well-to-do (especially after twelve years of expensive treatment, etc., of his daughter), I instructed the

girl how to carry on light gymnastic exercises, and to do a good deal of sweeping, all in such a way as to increase elasticity of the vertebrae by bending to the right, etc. Consultation with a good orthopedic surgeon, advised by me, brought the report that there is "nothing wrong with the spine," that "the tenderness is due to hysteria," etc.

A year after this visit the report was that there have been no attacks of unconsciousness; there have been no headaches up to the last two months, and the few during this time have been much less severe. She has been a well woman, in fact, and has been graduated from her school, etc. Upon diligent inquiry I find that during the last two months the girl has not been wearing the stronger lenses for reading, study, etc., as ordered. Precisely in this time have the few slight headaches occurred. The refraction had changed but slightly during the year.

It seems to me evident that; no disease, not even neurasthenia, not even epilepsy, not even hysteria, is causeless; that the search for the cause should be kept up rather than to say, "We treat it, but we do not cure it"; that the sneer and the pessimism slipped into the word *hysteria* betray the "science" and the character of the sneerer rather than explain or cure the disease; that this special case of "typical hysteria," as probably are many others, was caused by eyestrain; that it was certainly cured by careful refraction and correct spectacles; that the family tragedy of twelve years might have been avoided if —!

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**A CASE OF MASTOIDITIS IN A BOY OF 13 YEARS:  
OPERATION FOLLOWED BY ATTACKS OF  
PURPURA: RECOVERY.**

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BY WILLIAM C. BRAISLIN, M.D.,  
Surgeon Brooklyn Eye and Ear Hospital.

A boy of thirteen years was referred to me by his physician on April 25, suffering with severe pain in the ear and over the mastoid region. The drum was incised; calomel in repeated doses up to one grain, and magnesium sulphate were given.

The preceding history elicited at this time was that he had been a mouth breather for two years. During this time he had suffered with repeated sore throat and attacks of vertigo, the constant obstruction of the nose being very noticeable. Five days ago with an attack of "sore throat" he had high fever. An atomizer and spray solution had been employed, immediately following the first use of which pain in the ear began. For the past two nights he had been somewhat

delirious, less on the night just past, though pain in the ear and a beating tinnitus continued.

The night following the treatment instituted by the writer he passed very uncomfortably, and seemed but little better. There was some external swelling of the mastoid. In the afternoon a mastoid operation was performed. An operation for the removal of the adenoid enlargement in the naso-pharynx had been repeatedly suggested by the family doctor, and at the time of operation the mother requested that the operation on the throat be done under the same anesthesia, since she believed she would never have courage to consent to it later; we therefore agreed to do this.

Operation: The ear is prominent through edema of the soft parts. Bone unperforated before operation, but congested, the bone-cells filled with bloody serum and coagulated fibrin. Pus in the antrum and adjacent cells. Very large adenoids removed at same anesthesia. Recovery from anesthesia was uneventful. Patient did well for three days.

On the evening of the third day the boy complained of itching on legs and feet, was restless and feverish. On examination the feet were found swollen and dark with extravasated confluent blood blotches; purpuric spots on legs below the knees and on the feet. The next day the swelling in the feet had subsided, but dark subcutaneous extravasations existed below the malleoli and at the tarsal joint. Non-elevated purpuric spots still visible on legs. These rapidly faded to a pale yellow color, but four days later a new crop of purple hemorrhagic spots appeared. Bichloride gauze was substituted for the iodoform; urine examination negative. Acidulated fruits were prescribed.

Four days later, on May 6, the boy felt chilly and miserable; pains in the ankles, knees and elbow joints, and later in the evening large purpuric spots appeared on the thigh, largest on the posterior aspect, some as large as a silver quarter-dollar, also on the legs and ankles; though less numerous about the ankles than in the previous attacks. On the full appearance of the purpura the boy felt better and was bright when seen next day. A subsequent attack three or four days later appeared similar to, though lighter than, the preceding. There were no further attacks and the wound healed in seven weeks.

Summary: Alarming symptoms and the appearance of purpura followed three days after a mastoid operation, at which time likewise an adenoid operation was performed. Other at-

tacks of purpura followed on subsequent dates. The patient lost a considerable amount of blood at this double operation, at the time when an acute inflammatory process was proceeding in the middle ear. The removal of a large mass of adenoids left an exposed area of considerable size, capable of absorbing septic materials. The considerable loss of blood and the absorption of septic material from the pharyngeal wound favored, if they were not directly responsible for, the purpuric attacks.

The writer has frequently advised against operating for adenoids during the presence of acute or subacute inflammation of the pharynx and tonsils, and believes that the source of anxiety in the above related case would have been avoided by postponing until later the removal of the pharyngeal hypertrophic tissue.

## TRANSACTIONS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, SEPTEMBER 18, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

There were about 100 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

#### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

Simon R. Blatteis, 596 Willoughby Avenue.

William B. Meister, 186 Washington Avenue.

#### APPLICATIONS FOR MEMBERSHIP.

The following applications have been received: John Leopold Bauer, 149 Grove Street, Syracuse Medical College, 1904.

Carroll Leja Nichols, 232a Putnam Avenue, Cornell, 1904.

Julius John Valentine, 171 West 71st Street, Manhattan, P. & S., 1905.

LeRoy Powell Van Winkle, 1062 Bergen Street, L. I. C. H., 1903.

Proposed and seconded by Membership Committee.

Benjamin A. S. Stephenson, 116 Montague Street, Boston University, 1892.

Proposed by L. M. Dusseldorf, seconded by A. J. Dower.

Nellis W. Stephenson, 116 Montague Street, Boston University, 1892.



Proposed by L. M. Dusseldorf, seconded by A. J. Dower.

Charles E. Manning, 480 Putnam Avenue, L. I. C. H., 1897.

Proposed by W. F. Campbell, seconded by Membership Committee.

George P. Steinwick, 1170 Dean Street, Albany Medical College.

Proposed by J. Sheppard, seconded by Membership Committee.

R. F. Herriman, 1083 Bushwick Avenue, Univ. & Bell., 1903.

Proposed by O. A. Gordon, seconded by U. W. Weed.

#### DECEASED MEMBERS.

The Chairman of the Historical Committee reported the following deaths:

Alexander Hutchins, A.M., M.D., died July 30, 1906; N. Y. Medical College, 1860; President, the Medical Society of the County of Kings, 1876-78; President, New York State Medical Society, 1883; member, 1866-1906.

Charles Frank Herman, M.D., died August 2, 1906; University of Indiana, M.D., 1896; Long Island College Hospital, M.D., 1898; member, 1900-1906.

William Arthur Bliss, M.D., died August 19, 1906; Albany Medical College, 1866; member, 1869-1893.

Neilson Abeel Baldwin, M.D., died August 29, 1906; Yale University, 1861; member, 1874-1893.

The Committee appointed to draw up resolutions in regard to the death of Dr. Alexander Hutchins offered the following:

WHEREAS, In the ordering of events we are called upon to mourn the death of our brother, Alexander Hutchins, M.D., a bright and shining light in the profession and an honored member of this Society, for whom we all had the greatest respect and affection; therefore, be it

*Resolved*, That we recognize in his going the loss of one who was not only an ornament to his profession, but an active and efficient member of this Society, contributing much to its advancement and ever active in the furtherance of its aims during a long and eventful career.

*Resolved*, That in this bereavement the profession loses a man of rare intellectual attainment, whose marked ability with his pen was only equaled by his keen diagnostic power in the sick room, where his mental endowment preeminently fitted him for the finest service.

*Resolved*, That in the death of such a man, so honored by his fellow men, so fully equipped,

so fully furnished for his divine business of healing and comforting, we, the profession, share with the world at large the sense of an irreparable loss, while we rejoice in the record of good accomplished and the wealth of service rendered.

*Resolved*, That the sympathy of the Society be extended, and that a copy of these resolutions be presented to his family in their great bereavement.

A. W. CATLIN, M.D.,  
J. A. McCORKLE, M.D.,  
Committee.

On motion, duly seconded and carried, the report of the Committee was adopted.

#### SCIENTIFIC PROGRAM.

Under charge of the Committee on Public Health. Dr. E. H. Bartley, Chairman.

1. "THE WATER SUPPLY OF NEW YORK," BY CHARLES N. CHADWICK, COMMISSIONER OF WATER SUPPLY OF NEW YORK.
2. "THE UNDERGROUND WATER RESOURCES OF LONG ISLAND," BY PROF. ISAIAH BOWMAN, DEPT. OF GEOLOGY, YALE UNIVERSITY.

On motion, duly seconded and carried, a vote of thanks was tendered to Messrs. Chadwick and Bowman in recognition of their courtesy in addressing the Society.

A motion was duly made and seconded, that the advisability of holding a special meeting to discuss the problem of the water supply of Long Island be suggested to the Council. Carried.

The meeting then adjourned.

JOHN A. LEE,  
Secretary.

#### THE BROOKLYN SURGICAL SOCIETY.

STATED MEETING, JUNE 7, 1906.

The President, T. B. SPENCE, M.D., in the Chair.

#### CICATRICIAL KELOID OF THE HAND.

DR. J. D. SULLIVAN reported the case of a colored boy, age 14 years, who was admitted to his service in St. Mary's Hospital about October 1, 1905, and gave the following history:

In April, 1905, while in a laundry, his right hand was caught in a mangle and the skin torn from quite an extensive area of the dorsal aspect of the hand and fingers. Considerable inflammation and suppuration followed, and the denuded surface healed by granulation after a period of about three months. When the healing process

was completed the hand continued to be as sensitive and painful as before. Frequently the pain was so severe at night as to interfere with his normal sleep. The cicatricial tissue contracted to such an extent that flexion of the fingers was impossible, as well as inability to close the hand. Forced flexion was extremely painful. The patient could not be induced to make any practical use of the hand.

The margin of the cicatrix presented a smooth, glossy appearance, firmly adherent to the underlying tissues. The centre was marked by a dense ridge covered with dry scales. A similar ridge extended down the back of each finger to the second phalangeal joint. On October 6, 1905, the patient was anesthetized by ether and an incision made through the skin across the dorsum of the hand above the cicatrix also down on each side. Then all the cicatricial tissue was removed. A "V"-shaped incision, with apex upwards, was then made on the posterior surface of the lower end of the forearm. The skin-flap was then raised and freed from above and below with a blunt-pointed scissors, until it could be drawn down to cover the denuded area. The lower border of this flap was then divided into four strips to cover the fingers down to the second phalangeal joints. These were sutured in place by interrupted sutures of fine silk. The "V"-shaped space near the wrist was closed in a like manner and, after proper dressings were applied, the hand was put up in a straight splint. Primary union ensued, and the hand was restored to nearly its normal condition. A few weeks after the healing process was complete, it was noticed that there was a hyperplasia of cicatricial tissue developing in every scar resulting from the incisions during the operation. Each line of primary union developed into a reddish, glossy ridge, showing the inherent disposition of the individual to this abnormal condition, and the well-known tendency for keloids to recur.

The daily application of a 25 per cent. mixture of mercurial ointment accompanied by massage for several weeks prevented any further hyperplasia, and although those scars are still quite prominent they are soft and pliable and apparently harmless.

The speaker said he would suggest that in cases resulting from injuries in which a considerable portion of skin is destroyed, transplantation should be tried shortly after the injury is sustained; if possible, as soon as the first reaction has subsided.

#### GUNSHOT WOUND OF THE LEG.

DR. J. D. SULLIVAN stated that on May 12, 1906, Mrs. O. came to his office and gave the following history:

She was thirty years of age and mother of five children. About six weeks previous to that date while walking on the sidewalk, she was struck by a bullet, on the posterior aspect of the left leg just above the knee joint, fired by one or two men who were quarreling in the street.

The wound did not produce any immediate symptoms of a serious character, and proper treatment was neglected at that time. About two weeks later the tissues became inflamed and there was a purulent discharge from the wound. This discharge continued up to the time he first saw her in his office.

On examination the popliteal region was considerably indurated and presented evidences of a deep-seated suppuration. About two inches above the knee-joint there was a sinus leading upwards and inwards to the femur. It was his opinion that the bullet was still in the leg. He then sent the patient to Dr. Charles Eastmond who kindly furnished him with two skiagraph plates, one by a front and the other by a lateral exposure. Both these plates showed the bullet very distinctly, apparently in the upper and outer part of the popliteal space. Three days later, May 15th, under local cocaine anesthesia, and later re-enforced by a slight amount of chloroform, he enlarged the sinus sufficiently to admit the index finger. He then explored the popliteal region with his index finger quite thoroughly. Several pockets of pus were found but the bullet could not be detected from that entrance. As the limb was large, measuring eighteen inches in circumference, he determined to make a counter opening. This was done by longitudinal incision just above the external condyle of the femur. By passing the index finger into this opening and making a thorough and lengthy search, the bullet was located just behind the external condyle and not more than a half-inch distant from the bone, and considerably lower down and nearer the joint than was apparently indicated by the skiagraph. It was seized by forceps and easily extracted through the lateral wound. The usual cleaning and dressing followed and the patient made a rapid recovery.

From the flattened facet observed on the bullet, and the upward direction of the wound, it would appear that the bullet first struck the stone flagging of the sidewalk at a tangent and was deflected upwards, striking the woman's leg and



penetrating to the femur and then rebounding to the place where it was found.

There are two points of special interest in this case: First, the small amount of disturbance caused by the wound and the bullet in that important part of the leg for a period of six weeks. The patient said that she was in doubt whether she was struck by a stone or a bullet. Second, The discrepancy between the apparent position of the bullet in the skiagraph and its actual location in the limb.

#### GUNSHOT WOUND OF THORAX AND ABDOMEN.

DR. J. D. SULLIVAN reported the case of an Italian, age 22 years, single, blacksmith, who was admitted to St. Mary's Hospital on April 12, 1906, and gave the following history: Twelve days previous, while in the company of other young men, he was shot in the right chest by one of his companions. An ambulance was summoned and he was removed to Kings County Hospital, where he remained for twelve days and was then transferred to St. Mary's Hospital.

On admission he complained of intense pain in the abdomen, which was found on palpation to be distended, rigid and sensitive. Pulse, 130; respiration, 36; temperature, 101 1-5° F.

Physical Examination.—At a point on a line three inches downward and inward from the right nipple just below the fifth rib there was a penetrating wound extending downward and backward. The wound was clean and free from any apparent inflammation. There was marked flatness on percussion over the right chest. The right lung was compressed upwards. Subsequent aspiration revealed that this condition was due to a collection of blood in the pleural cavity, resulting from hemorrhage. He was put on a liquid diet and little medication.

April 13th and 14th his temperature varied from 98° F. to 101° F., and his only complaint was a burning pain in the abdomen. Bowels were constipated. From April 15th to 20th the temperature ranged from 100° to 103 3-5°, but otherwise he presented no grave symptoms. The abdominal distention and pain were gradually subsiding and his desire for food increased. From April 21st to the 28th the temperature ranged from 99° to 101° F., with pulse about 100 and of good quality. On April 29th it was noticed that the bullet wound showed signs of inflammation. It was reopened and a small quantity of pus escaped. While cleaning out the wound a few woolen threads were found about one and a half inches from the surface. These were evi-

dently particles of clothing which had been carried in with the bullet. After removing the threads the wound was swabbed with tincture of iodine and the healing was rapid and gave no further trouble.

From this date on there was a general improvement in his physical condition. The blood in the pleural cavity was gradually being absorbed, and the expansion of the lung was increasing. His appetite and digestion improved and he left the hospital in a very good condition on May 13th, which was about a month after his admission and six weeks after the injury.

Judging from the location and direction of the wound and from the signs and symptoms presented by the case, it is presumed that the bullet entered the right pleural cavity anteriorly at its lowest point, doing little or no damage to the lung, passed downward and backward through the diaphragm and liver and rested in the upper portion of the abdomen, where it probably became surrounded with the products of a plastic inflammation and finally ulcerated its way into some portion of the alimentary canal and was carried off with the contents of the bowels.

#### Discussion.

DR. M. FIGUEIRA asked Dr. Sullivan what evidence he had that the bullet went through the liver, and what evidence he had that the bullet went into the gut and passed out that way.

In regard to the treatment of the blood in the pleural cavity, it seemed to him that the doctor did not say anything about the aspiration of the blood. In cases of gunshot wound of the chest with these symptoms, if you do anything, you should make a free incision. He thought that in gunshot wounds of the chest where blood has flowed into the pleural space that the chest should be opened and the clots let out. Relieving the compression of the lung and endeavoring to control the source of bleeding is better treatment than letting the patient take his chances.

DR. J. D. SULLIVAN replied that in the first place he did not see the man until two weeks after the injury, and in the meantime he had been in competent hands. However, the man had marked symptoms of peritonitis when he came to him. The downward direction of the wound made him sure that the bullet went into the liver. If it followed the same direction down it must have penetrated the diaphragm, and from the fact that peritonitis was present he believed that it must have gone through the liver. He was suffering pain constantly. The

pain gradually subsided, the temperature went down and all these symptoms passed away. One of the attendants stated that blood had been passed in the stool, but he did not learn of it until some days afterward, and he did not give it as much importance as he would have if he knew it at the time; but he thought then that the blood in the stool had something to do with the result of the wound. The man was doing well enough, and he thought it good policy to let well enough alone.

#### GASTRO-ENTEROSTOMY FOR MALIGNANT DISEASE OF THE PYLORUS.

DR. M. FIGUEIRA, presenting a case of gastro-enterostomy, said that it had been in the medical service at St. Catherine's Hospital for three months, suffering with symptoms of gastric obstruction, and when it was decided that medical treatment was of no avail it was turned over to the speaker for operation. At the time that the patient came under his care he had all the symptoms of the advanced condition in these cases. He was emaciated, very weak, cachectic, could not retain anything in the stomach. He had the characteristic coffee-ground vomit, and a distended stomach. It reached below the umbilicus.

The speaker performed a gastro-enterostomy six weeks ago, and the patient has recovered the use of his stomach. He is able to retain his food. He has gained in strength, has recovered a great deal of the appearance of health, and the distention of his stomach has subsided. He eats pretty much everything, and the relief has been really marked. The speaker said that he presented this patient, because this class of cases is of vast interest at this time when this form of treatment is coming into general use, and moreover as even with the marked evidence of the benefits of this operation in this class of cases, there are many surgeons and physicians who do not realize its usefulness and importance.

Of course we know, the speaker said, in this class of cases the treatment is not at all curative, but it gives the patient a great deal of comfort and a longer lease of life.

#### GASTRO-ENTEROSTOMY FOR STRICTURE OF THE PYLORUS.

DR. M. FIGUEIRA reported another case, that of a sister in the convent. She was operated on for an obstruction of the pylorus produced by the contracture of a gastric ulcer. She was a patient of Dr. Fuhs, and under his care for a long time. The symptoms of pyloric obstruction

came on gradually. She vomited everything, and in spite of treatment emaciated greatly. The doctor doubted very much whether she would recover or stand the operation. The speaker operated and she recovered.

In that case he did the posterior operation, but about a month afterward she began to vomit a large amount of bile and pancreatic fluid, in the morning especially. Every morning she would have a feeling of nausea and burning, and unless the stomach tube was passed she would vomit. He operated again and found the condition that Mayo described in a recent publication. In doing the operation he did just what he describes, he united the loop of the jejunum from left to right, reversing the natural condition in which the gut passes. As the jejunum comes down and enters the peritoneal cavity through Treitz's ligament it passes downward to the left and backward into the left duodeno-jejunal fossa. In uniting that, if the surgeon turn it around and anastomose it from left to right, he destroys the natural condition of things, and gives rise to an angulation; and that was what occurred in this case. He found the loop between the pylorus and jejunum was kinked, and when a collection of bile gathered in the loop, and the loop contracted, it emptied into the stomach and vomiting occurred. In this case he joined the distended loop to the jejunum below, that is between the proximal loop and the intestine below. She is now entirely well.

#### RADICAL CURE OF LARGE VENTRAL HERNIA.

DR. R. S. FOWLER showed a patient whom he had operated upon at the Brooklyn Hospital three years ago for appendicitis. At that time he had an abscess which was drained. There was a good deal of sloughing associated with the healing process. As a result of the drainage there developed a ventral hernia. The patient was not seen again until a few months ago, when he showed a large ventral hernia. He was referred to the German Hospital and there Dr. Fowler performed a plastic operation for the cure of the hernia. It was necessary to displace the rectus and suture it to Poupart's ligament, and to manipulate the aponeurosis of the external oblique, which had sloughed to a great extent, in such a manner as to cover in the surfaces exposed. The operation was four months ago, and the man is now doing active work. The result is perfect.

#### MODIFICATION OF KELLY'S CYSTOSCOPE.

DR. R. S. FOWLER presented an instrument, a modification of Kelly's cystoscope. The original



Kelly cystoscope was a very handy instrument for quick work, but had the disadvantage of having to have inserted through the lumen of the tube, and consequently in the way of vision, a sucker to draw away the urine. To avoid that he had one made with a narrow channel lying on one side, and to that connected a bulb and tube, so that an assistant could keep the field clear. This tube should have in it a two-way stop cock. In this way the operator can keep his eye on the field, and does not need to bother keeping the field free from urine, as this can be managed by an assistant.

#### FIBRO-LIPOMA OF SCROTUM WEIGHING 50 POUNDS.

DR. L. W. PEARSON said that early in November, 1905, he was called in consultation to see a patient seventy-four years old, who twelve years ago had observed a small tumor in the scrotum, and consulted a physician concerning it. He was advised not to have it removed, as it was benign, and would cause no disturbance. It was then about the size of a walnut. Since that it has had periods of quiescence and recrudescence.

For a long time he had been unable to walk on account of its size, and for twenty-seven weeks unable to leave his bed. For many weeks he has been unable to turn over in bed without someone raising the tumor for him. When Dr. Pearson saw him he was in bed, unable to turn over; thin, weak, and with an enormous tumor springing from the lower part of the abdomen. It was impossible to tell by inspection the point of origin. No scrotum or penis could be made out, both being lost in the neoplasm. It was traversed by many large veins. It varied in consistency, being almost of woody hardness at some places, and so soft at others that he suspected fluid; nor was he sure of its non-existence till he had inserted a trocar. There was an unusual fullness in the inguinal canal which led some physicians to diagnose hernia. However, aside from inspection, he was unable to obtain evidence that it existed, and so negatived the diagnosis. The location of the penis was determined by observing a small orifice from which urine escaped. This was found with some difficulty—the penile organ being absolutely lost in the new growth. The patient was very anxious to have something done, and notwithstanding a prognosis that was anything but bright, he insisted on an operation. Dr. Erdman administered the anesthetic and Drs. McQuillan and Sheehy assisted at the operation. An incision was made just beyond the penile orifice,

about four and one-half inches long, transversely, then a longitudinal one from the extremities of the first incision, and directed towards the abdomen. Dissection was made till the lost penis was recovered. The removal of the tumor after this was easy of accomplishment. The new growth was chiefly lipomatores. The lipoma invaded the right inguinal canal, thus simulating hernia. The patient stood the operation nicely, and without shock, healing by first intentions. Three weeks later he was walking about, and continues in excellent health. The weight of the removed growth was fifty pounds.

#### INJURY OF THORACIC DUCT.

DR. L. W. PEARSON reported the case of a woman, aet. 45. History negative. Enlarged cervical glands on left side of neck. Late in January her family physician incised an inflamed part. Dr. Pearson was called April 6, 1903 to see the patient. Enlarged tubercular glands presented on the left side of the neck, between the inferior maxilla and clavicle. Midway between these points a fistula discharged a thin, oily pus from a deeply lying suppurating gland. He operated for the removal of the affected structures. Six enlarged glands, including the suppurating one, were removed. The adhesions were abundant. The wound was closed, except at the lowest point, to permit a small gauze drain. This was removed at the end of twenty-four hours, at which time nothing unusual attracted attention. April 12th a large swelling at the site of operation warned him something amiss had taken place. There was no evidence of suppuration, yet the skin was beginning to melt away. A probe introduced at the site of drain revealed a thick, white, cordy material. This distended the entire operative area. On clearing it away a whitish fluid oozed up in the wound, about an inch or more above the clavicle. It was undoubtedly chyle, and the amount lost daily was large. The overlying skin melted away. There was no pain; nor was the patient annoyed by hunger; she grew weaker. The temperature ranged between F. 100° and F. 101° for three days. Fearing the loss of so much chyle, it was decided to search for the divided duct, and repair it. Operation was set for the 19th, but assistant was ill, and could not be replaced at once. Dressings were removed, and the flow of chyle was found much lessened. The wound was firmly packed with iodoform gauze as before, but now with the hope of repair of the wounded duct. April 20th wound dressed—very small

loss of chyle in past twenty-four hours. Could no longer see the wound filling up with chyle as heretofore. April 21st: no chyle. From this time wound rapidly filled in; convalescence uneventful.

#### *Discussion.*

DR. SPENCE said that he had seen two such cases of injury to the thoracic duct. Both of them were packed and both of them recovered perfectly. With that experience before him, he would do as Dr. Pearson had done, with the exception of getting ready for an operation. He would not operate.

#### TETANUS, TREATED WITH ANTITETANIC SERUM.

DR. C. FULDA reported the case of a man 24 years old, who was admitted to the German Hospital on July 14 suffering from a laceration of the right leg and foot, received while attempting to board a moving surface car. The patient had syphilis six years previously and gonorrhea four years before.

The injury was confined to the anterior and external surfaces of the leg and to the dorsal surface of the foot. There were no fractures, but the soft parts were so extensively lacerated and so badly soiled by street dirt that the question of amputation came up. This plan was, however, abandoned, and the part thoroughly cleaned with soap and water; the skin, muscles and tendons that were beyond hope of recovery were trimmed off; vessels ligated, and a Thiersch wet dressing applied. Thereafter the wounds were dressed three times a day, until the third day when the secretions became so offensive and profuse that a constant wet dressing of alcohol and bichloride was applied. One to 4,000 bichloride was diluted with equal parts of 50 per cent. alcohol and the dressing kept constantly moist.

All went well until July 27th, thirteen days after the injury. The patient then complained of pain in the gums and teeth. The gums were red and swollen and bled slightly. There was some salivation. A diagnosis of stomatitis was made, Thiersch wet dressing substituted for the bichloride, and the patient put on potassium iodide and mouth washes. Three days later the odor from the mouth was extremely offensive and there was much pain and discomfort about the jaws. During the following night the nurse saw some twitching of the muscles of the arm. The patient was, however, not disturbed, and during the next day was out of bed in a wheel chair.

Finally, on the morning of August 10th, twenty-seven days after the injury, there was noted slight rigidity of the jaw muscles and inability to open the mouth more than an inch. A diagnosis of tetanus was made, and 30 c. c. of antitetanic serum injected subcutaneously. The rigidity of the jaw muscles increased from day to day until trismus was marked, it becoming necessary to feed the patient through a small tube. His room was darkened and all possible care taken to exclude noises and draughts of air.

Three days later the abdominal wall became rigid. At intervals of two to eight minutes extremely painful spasms of the muscles of the abdomen took place. He again received 40 c. c. of antitoxin subcutaneously, and in addition large doses of chloral and Majendie's solution. On the following day the spasm of the abdominal wall became more frequent, each contraction being accompanied by micturition. The quantity of urine passed at such times varied from a few drops to several ounces. Examination of the urine showed no evidence of a cystitis. A day later profuse perspiration set in, together with a mild delirium. There also developed on this day a slight degree of oposthotonos. Up to this time the patient had received daily injections of 30 to 40 c. c. of antitetanic serum with no improvement. Intracranial injections were now proposed, but rejected by the family. Forty c. c. were again given subcutaneously, and the chloral and bromides increased. During the next few days there was little change in the condition of the patient. The trismus continued, the spasms and rigidity of the abdominal wall were just as severe and spasms of the lower extremity appeared.

The perspiration and oposthotonos were the first symptoms to disappear, then the trismus and somewhat later the abdominal symptoms subsided. The last twitching in legs was noted on September 2, twenty-three days from the day on which tetanus was first diagnosed. The patient was discharged two weeks later with a serviceable foot, slightly stiff at the ankle, but functionally only slightly the worse for the injury.

In all forty-seven injections of antitetanic serum, each of 10 c. c., were given. It was necessary, to keep the patient at all quiet, to give large doses of chloral and bromides. The pain was made bearable by morphine.

Aside from the fact that this case has served to make the speaker more cautious in the use of bichloride dressings, it calls renewed attention to the close observation under which wounds of



this class should be kept. Had the possibility of tetanus appearing been kept in mind, the mercurial stomatitis would not have obscured the onset of the more important malady. The urinary symptoms were new to the speaker. The possibility of a cystitis was not overlooked, but repeated careful examination of the urine showed no evidence of such a condition. Furthermore, practically, without any treatment, these symptoms gradually grew less and less and finally disappeared, as they had come, with the other manifestations of tetanus.

#### *Discussion.*

DR. L. W. PEARSON said that in this case of tetanus the course was the same as he had seen in other favorable cases. He had read the reports of many cases in which tetanus antitoxin had been injected, and he had never been able to convince himself that it had done any good in any case. He thought if he had a case of tetanus he would treat it without the antitoxin. He thought our main reliance is to use large doses of sedatives, supportive treatment and early antiseptic attention to the wound, but all cases he had read of that had recovered, it struck him, they had done so without any benefit from the antitoxin.

DR. C. H. GOODRICH said that this case of tetanus was unquestionably what some writers call chronic tetanus, that is, coming on after a long period of incubation and with a slow onset and gradual appearance of symptoms and a slow recovery. A larger portion of these cases, of course, recover than of those of which the incubation is but four to six days. At the same time there are more of these cases recovering now, according to the literature, than recovered ten to fourteen years ago. Dr. Pearson's scepticism regarding the usefulness of antitoxin in this case he could not share. Of course, we must all feel certain that we have here a serum agent that is inferior in its efficacy to antidiphtheritic serum, which has given us such favorable results. At the same time, if Dr. Pearson would take a long series of cases treated by chloral and bromides, and another long series treated by the antitoxin, even though the chloral and bromides be used, he will find that the recoveries are much more frequent where antitoxin is used, even though it be not used in the preferable ways, by intraspinal or intracranial injections.

The most impressive thing to the speaker about the use of antitoxin is that it has increased very greatly the proportion of recoveries in the very

acute cases, which have come on with violent onset after short periods of incubation.

DR. M. FIGUEIRA could not agree with the doctor in saying that in acute cases antitoxin has done good, because he had never seen a case of acute tetanus recover, and he had seen a great many and had tried all kinds of treatment, including injection into the brain substance and injection of antitoxin subcutaneously, with injections of carbolic acid combined; and all the acute cases he had seen, both in his own practice and in that of others, all died.

In regard to the case reported here, he did not think the best treatment was used, as the nerves leading from the part were not injected and injections were not made into the spinal canal. We know, the speaker said, from the pathology of the disease that it travels in the substance of the nerves, and that it is there we can expect to head it off. The speaker thought that treatment by injecting the nerves leading from the injured part and injecting into the spinal canal presents better results than injections into the brain. He had seen a case of the kind where the antitoxin was injected into the brain, and each injection it seemed made the man worse.

#### THE BROOKLYN PATHOLOGICAL SOCIETY.

CLAUDE G. CRANE, M.D., Editor.

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The President, H. G. Webster, M.D., in the Chair.

#### A DISCUSSION OF SARCOMA. IN PATHOLOGY.

DR. J. M. VANCOTT said that nobody knows anything about sarcoma except the surgeons. They and the patients have some idea as to the nature of this growth, but when we come to the question as to what the thing is itself, we know nothing.

There are a number of theories as to the origin of sarcoma; the parasitic theory has not entirely been abandoned, although there is a tendency to doubt the presence of parasites to call forth the growth of any of these malignant tumors, but with this theory it is still simply the Scotch verdict *non constat*. Then there is the theory of Cohnheim, which supposes the existence of cells, embryonic in nature, which lie dormant in the tissues, until some kind of an exciting cause makes them suddenly grow and manifest them-

selves in the form of a tumor. Then comes the theory of Thiersch who says all tissues are in equilibrio as long as they are healthy, that is to say, that the stroma and cells of the tissues grow according to a definite law and retain their growth within certain limits, until for some reason or other this normal inhibitory condition, which may be nervous in its origin or otherwise, is removed, and then the cells grow lawlessly, and tumors such as the sarcomata and carcinomata develop.

Ribbert has introduced another theory, which is a little different from this, and yet in a way is somewhat similar. He says when a sarcoma grows, there occurs a separation of certain cells of connective tissue from neighboring cells, that these have drifted away from the territory in which they were normally placed. He says that they then show a tendency to aberrant growth and an independence of growth, which results in the formation of a sarcoma.

Virchow was the first to introduce the idea of irritation as the cause of sarcoma, and he showed that there was some relation between irritation or trauma and sarcoma. While we know that traumatism has a direct relation in cases of sarcoma, in order to establish the fact, one must have a consecutive history of a trauma, and following it a certain series of circumstances which are constant; we must trace a series of symptoms, pain, swelling and growth, or else we can not prove the relation of trauma to the growth itself.

Hansemann applied the theory of asymmetry of anaplasia to the formation of tumors, and showed that when a sarcoma grew the karyokinetic figures were asymmetric.

Sarcoma is a tumor of connective tissue origin. It is a neoplasm which consists in the formation of cells, which are just a little beyond what we call myxomatous and just behind what we call adult connective tissue. In other words, the cells of a sarcoma represent structural elements, which resemble closely the structures of an umbilical cord at the seventh month. These cells are various in shape, in size and in their tendency to grow in point of relation to each other. One finds that sometimes the cells grow very closely together, with a stroma which is intimately associated with the individual cells, and then sometime we find that these cells show a tendency to separate themselves into islands and to be surrounded by vascular connective tissue.

Sarcoma is a tumor which is very closely related to the blood vessels. The tendency which

the tumor shows to migrate is usually through the blood vascular channels—that process which we call metastasis taking place usually through these channels, only occasionally occurring through the lymphatics; so that for a long time there has been supposed to exist a definite relation between the blood vessels and this tumor formation; and until quite recently there were some forms of tumor which were called sarcoma, which really originate from the endothelium of the blood vessels and are known as endothelioma.

The speaker said that there seemed to be some relation to heredity in the formation of sarcoma. There is no more an inheritance in one sense than there is in tuberculosis. We do not know, we find sarcoma cells inherited, and we think there are strains in individuals which render them more liable to the formation of such tumors, and that these strains may be transmitted according to the law of heredity through successive generations.

The cells of sarcoma seem to lack a something which ordinary histological elements possess, and this lack may be an expression, in terms as far as we can know, of that which we call an hereditary tumor. Recently a great many experiments have been made as to the possibility of inoculating sarcoma. Recent reports from Ehrlich's laboratory state that no less than 300 mice have been sent to the laboratory and inoculated with sarcoma, and he has been able to carry it through 30 to 40 generations in a number of instances.

Sarcoma is malignant because, in the first place, of its tendency to grow rapidly and to sap the normal juices of the body, to render the patient cachetic and to deprive him of that which is necessary for his normal growth. Again it is malignant because of the bio-chemistry of the sarcoma elements themselves. In the metabolism of certain cells, it is possible that as in carcinoma there is produced a substance which is poisonous to the system, so that the body tissues suffer as a result of the presence of these toxins from the sarcoma cells. Then, again, sarcoma is malignant because of two other tendencies. First, the tendency of the tumor to destroy tissue and, second, the tendency of the tumor to migrate into other parts of the body and to locate in places where the mere pressure of the growth must of necessity be fatal. A gliosarcoma of the meninges will be more rapidly fatal, for instance, than an osteosarcoma of the arm, simply because of the environment of the tumor, and because the matrix is in close proximity with



structures which cannot stand the pressure of growth.

The matrix never takes part in the growth. There is a general idea that, as a tumor grows the cells of the tissue in which the tumor is growing, especially those cells in resemblance with the tumor, take part in the growth. When a sarcoma originates, all the successive generations of cells originate from the original sarcoma cells, and are not due to degenerative processes in the matrix of the tumor.

Sarcoma is a tumor which is particularly prone to associate itself with other forms of neoplasm, with osteoma, chondroma and myxoma particularly.

The malignancy of sarcoma depends again on two factors, first, the character of the cells themselves, and, second, the question as to whether the tumor be surrounded with a capsule. Personally, Dr. Van Cott thought the capsule a very important matter. He believed that for surgeons particularly, the existence of a capsule sarcoma is of extremely vital importance. You may take a tumor from the back of a baby, and it may have all the characteristics of a highly malignant form of sarcoma, and yet you will never hear of the thing again, simply because it is encapsulated. You may get a tumor which infiltrates the matrix, and in spite of all efforts the growth becomes metastatic and operation is futile.

Inasmuch as sarcoma is a tumor of metastases, the size of the cells has to do with the tendency of the growth to migrate; so that the smaller varieties, of round cell particularly, are more prone to be malignant than those in which large or small spindle cells are found, because of these mechanical conditions.

The alveolar types of sarcoma where the cells tend to group in islands are highly malignant, and particularly those which are pigmented. When a pigmented sarcoma attains the size of a pea in the orbit, for example, it is said that there is no use in removing the organ, because by that time migration has occurred and the meninges are already involved.

#### TREATMENT, OPERATIVE AND BY THE MIXED TOXINES.

DR. W. B. COLEY said he thought that Park was quite right in attributing to trauma a very important place in the etiology of sarcoma. Personally he had had under observation over 500 cases of sarcoma, and in that list, in more than one-third of the cases, there was a distinct his-

tory of previous injury. Not always did the tumor develop immediately after the injury, and he did not think that is as important as Dr. Van Cott believed. In cases where a long interval of time occurred between the injury and the development of the disease, we could not attribute such an important place to injury as in the case with a short interval.

We have a certain number of cases which may be classed as acute traumatic malignancy, in which the development of the tumor immediately follows the injury. One of the speaker's earliest cases was that of a girl of 18, perfectly healthy, who had her hand upon the edge of the seat of a car, when some one turned the back of the seat around and struck her hand. A swelling occurred at once, and in a few weeks examination showed it to be a malignant type of round-celled alveolar sarcoma, which, in spite of amputation at the forearm, did not prevent a general metastasis and death two or three months later. The speaker said that he had had a number of cases quite as characteristic as that, in which there was no question that the injury was a direct causative agent in the production of the disease.

The most plausible explanation of injury of all kinds is, to suppose sarcoma to be due to microbic origin, to a germ of some kind, and because we have not found it does not prove that it does not exist. None of us doubts smallpox is a germ disease, yet the germ has not been discovered; neither do we know the germ of syphilis, and we do not doubt there is a germ, and though the opinion of pathologists to-day is averse to the germ origin of sarcoma, those who have had the largest clinical experience with sarcoma, seeing it from the time it starts to the time it kills the patient, are the strongest believers in its germ origin, and Dr. Coley believed that opinion is going to be demonstrated in the near future.

If, granting such a theory as the cause, it is very simple to understand how trauma acts, just as it does in tuberculosis. Tillmanns believes that the great majority of cases of tuberculosis in bone are the direct result of trauma. A child of weak vitality or predisposed to tuberculosis, falls down and injures the knee, and the loss in resisting power gives the germ a chance to start at that particular place and produces tuberculosis of the joint. The same thing is easy of explanation as regards sarcoma. Probably this agent is widely spread, and certain individuals, more lacking in resistance, are

susceptible and develop the disease, given the particular local or exciting cause.

To go on to the real subject, the speaker said, the results of operative treatment; they do not differ from the operative results of the treatment of carcinoma. A certain number of cases operated on early will get well, provided the tumor is of a certain type. We rarely cure a case of sarcoma of the femur, and in melanotic sarcoma he had yet to see a case that had been cured. Taking sarcoma cases altogether in a general group, probably 25 to 30 per cent. of the cases are cured through surgical treatment, and the earlier the operation the better the results. It is not always possible to make a diagnosis early, and this is particularly true in sarcomas of the bone. A week ago they had two cases of tumor in the lower end of the femur at the Hospital for Ruptured and Crippled. The first one was in the service of Dr. Gibney and Dr. Coley saw it in consultation. Dr. Gibney made a diagnosis of sarcoma, but the speaker did not believe it was sarcoma, as most of the characteristic signs were absent, and there was a distinct family history of tuberculosis. He made an exploratory incision and found it was a central sarcoma, with marked cystic degeneration. He was entirely wrong and Dr. Gibney was right.

In a few days they had another case of tumor of the lower end of the femur, which had been treated at St. Luke's Hospital for five or six months with a plaster cast. It had all the characteristics of tuberculosis and an operation of resection of the joint was begun, yet proved to be a sarcoma. It is not always easy to make the diagnosis. Where there is any suspicion of a malignant tumor, especially sarcoma, operative interference and exploration, prepared to go on to radical operation, is the only proper treatment of these cases.

In the cases of bone sarcoma, particularly of the tibia, or a sarcoma of the arm, possibly excepting the humerus, which if the disease is extremely acute—operation by amputation at the shoulder-joint being very rarely successful,—in these cases he had recently modified his earlier opinion of advising immediate amputation. Up to the present time there are twelve cases on record in which amputation of a limb has been avoided by the use of the erysipelas and prodigiousus toxines, and eight of these twelve cases are now well from three to eight years. These cases seem sufficient ground for

advocating a preliminary trial of the toxines before sacrificing an arm or a leg.

One case in which the disease was far advanced was a sarcoma of the femur, in which the tumor was so far up the shaft of the femur, almost up to the joint, that Dr. Gerster did not believe a hip-joint amputation would do good; in fact, the disease was so far advanced that the patient had sustained a spontaneous fracture on account of the growth. This case was treated with the mixed toxines, and after a number of months it began to improve, the tumor finally disappeared, the bone reunited, and the case was well nearly four years later. This case shows that in very desperate cases we do have some chance of saving the leg. This is particularly important when we look at the prognosis of cases which have high amputation. The speaker said that he had performed eight hip-joint amputations with no mortality following the operation, and yet none of the six cases with sarcoma of the femur is alive to-day. They all died of metastases within a year after operation. Of 68 cases of sarcoma of the femur collected by Butler, in which hip joint or high amputation was done, only one was cured.

Four years ago Dr. Coley had a case come to the Ruptured and Crippled Hospital with a sarcoma involving the lower two-thirds of the femur in a boy 19 years old. He advised hip-joint amputation. The parents absolutely refused the operation, and at that time he was beginning experiments with the X-ray, and put the boy on that treatment. The tumor decreased in size and the boy improved. He went on from February to the fall, and in the fall he developed metastases in the left pectoral region, very vascular and involving all the soft tissues. Dr. Coley removed as much as he could by operation, and then the boy developed a metastatic tumor, the size of a child's head, in the left iliac fossa. At that time he put him on large doses of mixed toxines of erysipelas and B. Prodigiosus. The large tumor in the back softened up in a few weeks, so that it was fluctuating. He opened it posteriorly and drained it, and the boy is well to-day, nearly four years later.

There is no possible question that operation should be resorted to in every operable case, except where amputation of a limb is needed. In every case of an arm or leg involvement, the speaker thought it is well to give them a preliminary trial for a few weeks with the toxines before taking off an arm or leg.

As to the removal of specimens for examina-



tion, he believed there is danger attached to some of the methods in making a diagnosis, for example, the so-called tumor punches, to get a specimen for examination. In many cases he believed it permits the escape of some free sarcoma cells into the blood vessels with the danger of causing metastases in other parts of the body. He did not think it is necessary to resort to such means.

Dr. Coley said he wished it understood that at the present time he recommended the mixed toxins only for cases beyond operation, with this special exception in the case of attempting to save a person from amputation of a limb. If only 25 or 30 per cent. of the cases get well from surgical treatment, we have left about 70 to 75 per cent. of cases to try some other means of treatment. We have only two remedies that he thought are worth considering, and they are worth considering, and they are the X-rays and the mixed toxins. Four years ago he began a very thorough trial of the X-rays and used them on 70 cases of various kinds of sarcoma, and not a single one of these cases has been cured. In only four or five of the cases did the tumor disappear and the others showed little or no improvement. Those cases in which the tumor disappeared recurred soon and no longer yielded to the X-rays. There are very few cases which have gone over two or three years well after the X-ray, and we can thus eliminate the X-ray as of value in deep-seated growths.

The speaker said that he would state briefly that the results of his earlier work showed better success in spindle than in round-cell sarcoma. In the more recent reports he is getting very nearly as good results in round-celled as in spindle-celled sarcoma. In 36 cases that may be classed as successful, in 21 of these cases the patient has remained well from five to thirteen years. In a paper in the *Amer. Journal of Medical Sciences*, March, 1906, he stated that 13 of these cases were round-cell sarcoma and 16 were spindle-cell, whereas in 60 cases of successes in the hands of other surgeons 22 were round and 14 were spindle, and the others various types. Of course, the round-celled is more common than the spindle-celled, so that the actual proportion of successes is greater in the spindle than in the round.

As to the technic of using the toxins, he makes it a rule to begin with a minimum dose, not over one-half minim, and if you are injecting into a vascular tumor it is well to make it as small as a one-fourth or one-fifth minim by diluting

with boiled water. The speaker said that he had recently received a letter from a doctor who was treating a patient who had a tremendous chill and was comatose for an hour with an injection of only one-fourth minim. This was a vascular tumor of the thyroid. This was a most unusual result. If you are using it remote from the tumor, you can use a larger dose without getting such ill effects. He has had no death from the use of the toxine in upwards of ten years.

Dr. Coley then presented a patient who had been operated on for a round-celled sarcoma of the tonsil and neck by Dr. Carl Beck. It was impossible to remove either the internal or neck tumor entirely at the operation, and the tumor grew more rapidly after the operation than before. The tumor was extremely malignant, it being noticed in July, operated on in September and grew rapidly after that. He had X-ray and radium tried without success, and was told by a very good surgeon early in October that he could live only a few weeks. He was referred to Dr. Coley by Dr. Gerster and entered the Memorial Hospital and was treated for seven weeks, when the entire tumor had disappeared. In this particular case the toxins were eight months old and had not been kept on ice. Another interesting feature in this case was that most of the injections were given remote from the tumor. Some of the injections were made in the neck, the majority were made in the pectoral region, and none in the tonsil tumor, so that the effect was systemic rather than local. In a large number of cases success has been obtained by injections entirely remote from the tumor, that is, by the systemic effect. In this man's case no difference can now be detected in the two tonsils. He remained in the hospital for seven weeks, and although the tumors have disappeared entirely, he has had a number of injections in the pectoral region, two or three a week, and at the present time he is having one every two or three weeks as an extra precaution against recurrence.

The pathological examination of this case was made at two different laboratories. It was declared by both to be a small round-celled sarcoma.

Unfortunately all of the cases do not have such brilliant results as this seems to be. At the same time that the speaker was treating this man, he was treating another tumor of the tonsil by the same injections. The other was a lower growth, much less malignant apparently, and yet it showed no effect from the injections. It is only

in a small proportion of cases that success occurs. The best explanation of this is, he thought, that in every case there is a certain stage of equilibrium. There is the natural resisting power in some individuals, which may prevent the disease from advancing, and if we can by means of toxins do anything else to increase this resisting power and turn the scales on the other side we get success, and in the other cases we get failure. If we can get permanent cures in such cases as cited, it seems worth while to try the injections in any case no matter how desperate it is. The speaker recalled a case he had showed in Brooklyn two years ago of a round-celled sarcoma which involved a number of the vertebræ. Five years ago the patient had been treated for spinal disease. It turned out to be a sarcoma. The boy had lost 60 pounds in weight, had total paralysis of the bladder and rectum and was unable to turn over in bed, and it did not seem he could live more than a week or two. This one would say was a sufficiently desperate case to contraindicate the toxins. He began giving the toxins, and the boy got entirely well in four or five months, and he is at the present time earning his living in perfect health nearly five years. These cases are sufficient, the speaker said, without going into further details to show what the toxins will do in some very bad cases.

There is another field in which the toxins are indicated, which is illustrated by the following case. The case of a large tumor filling up the abdominal cavity was sent to Dr. Coe from the Philippine Islands with the diagnosis of a round-celled sarcoma. The tumor was entirely inoperable. An exploratory incision was made while she was in the Philippines, and it was impossible to remove the tumor. Dr. Coley put the patient on the X-rays and toxins combined, and after nearly four months the tumor became smaller and mobility was present, although in the beginning it was quite fixed. Dr. Coe and he operated on it at the end of this time. It was very easily removed. It was pedunculated, started from the left ovary, and its adhesions to the abdominal cavity and viscera were so slight it was easily separated. Undoubtedly many cells were left behind. They did not expect more than temporary improvement, but the patient is now out of the hospital a year. She is in perfect health, has gained 28 pounds, and promises in the near future to give birth to a child; so that here is a case where the toxins converted an inoperable into an operable tumor, and he thought there are many cases where these results could be duplicated.

The speaker said that they were trying a new experiment at present as a result of the Huntington Cancer Research Fund work by Dr. S. P. Beebe. Dr. Beebe has taken the sarcoma cells, extracting the nucleo-proteid precisely as he did in the exophthalmic goitre serum and injecting this serum into patients suffering from sarcoma. Dr. Coley had tried that on four cases, and some showed considerable improvement. The results were too recent, however, to draw conclusions from, but it promised a very interesting field for research. We certainly, he said, have great need for something far better than the toxins, and something that will cure a large number that we are unable to cure by toxins or operation, and we hope these various inquiries and researches in the near future will bring about such a result.

In answer to a question, Dr. Coley said that a full description of the technic of preparation of the toxins is in the article in the *American Journal of Medical Sciences* that he referred to. It consists in growing the streptococcus of erysipelas, preferably that obtained from a fatal case, in a culture medium. Most of the good results have been obtained from very virulent cultures, and Parke, Davis & Co. have succeeded at the present time in getting out a preparation which is as good as the Buxton one. Parke-Davis are the only people that supply the mixed toxins to the profession. The streptococcus is grown for three weeks in bouillon. At the end of that time the bacillus prodigiosus is added to this, and the two are grown together for a week or ten days, and then the preparation is sterilized by subjecting it to sufficient heat to destroy the germs without injuring it chemically, that is 50° to 60° C. Then thymol is added, and if kept in a cool place it will retain its value for a considerable time. He had used it after a year with good effect.

The technic of giving it is just an ordinary hypodermic needle. He puts boiling water through the needle before using it and sterilizes the point of the needle in an alcohol flame without injuring the needle. The amount he gives is guided by the temperature of the patient. Ordinarily a temperature of 102° or 103°, and sometimes 104°, can be obtained without causing any serious disturbance to the patient. You will have a chill lasting 20 minutes to half an hour coming on 15 to 20 minutes up to an hour and a half after the injection. After this disappears there is considerable headache, general malaise and gripe-like pains, which disappear in a few hours. The chill leaves them feeling better than



if they had a smaller dose, and some patients have got well with one or two chills. The patient presented during the evening did not have more than one or two chills during the entire treatment. His largest dose was seven minims.

Dr. Coley, nine years ago, had a patient who had been treated with the same toxins in a neighboring town for three weeks, and the treatment was considered of no avail. He came to the speaker who began the same treatment in larger doses, and the patient had a temperature of 104 every day. He was a strong, robust fellow and did not mind it at all. He had a sarcoma of the parotid and neck. With these large doses he recovered, remained well for six years and died of something else. Dr. Coley thought many of the failures have been due to not giving enough of the toxins.

In reference to the point brought out by Dr. Pilcher, the medico-legal point, he has a patient who is suing a steamship company for a sarcoma which developed immediately after an injury. She was in her stateroom, and owing to some defect in a washstand arrangement, she received a severe blow upon the arm from its falling down. She developed a sarcoma at the point where she was injured, and after trying the toxins and X-rays without success he had amputated the arm. This case was undoubtedly a traumatic malignant case, and the trauma undoubtedly bore an important relation to the tumor. The question, as far as he knew, has never been before the courts.

DR. L. S. PILCHER said that the experience which every surgeon has had in dealing with these growths has made him feel that anything which would promise help in this class of cases, when the surgeon has to lay it down as inoperable and possibly carry it through to recovery, would be of the highest value and importance.

From a surgical standpoint as regards the treatment of sarcoma, he had nothing to add to that which is the common knowledge and practice of all surgeons in dealing with malignant diseases of every kind, that is its immediate, early and radical removal, if possible. It is often the case that conditions are developed in the course of operation, which shows a surgeon that instead of dealing with a comparatively benign condition he has to deal with a very malignant condition, and that operative procedures which at the outset had expected to be limited, must be extensive and radical if any value is to attach to them, so that a very great degree of unexpected responsibility rests upon the surgeon in his dealing with such cases, and especially is this so in

many cases of sarcoma. Often what we have thought to have been an inflammatory mass or a neoplasm of a less malignant character is revealed by our operative procedures to be of sarcomatous nature. On the other hand it arises sometimes that we are happily disappointed by the revelations of our knife, that what we believed to be of malignant character is found to be inflammatory in nature, but more frequently the opposite is the case, and then it is the responsibilities resting on the surgeon are extremely great. Shall he instead of a simple local removal proceed to the absolute amputation of a limb? Is he warranted in doing it? The speaker said that he remembered one of the most vivid experiences in his own work, a case similar to that which Dr. Coley had reported, where proceeding to operate for a supposed tuberculosis of a joint the operation revealed extensive sarcomatous degeneration of the joint. The same experience must be met by every surgeon at times. When a man meets a case like that it is extremely difficult to determine just what to do. Although the question of what to do academically and surgically with all these cases may be apparently very simple, yet in the application to individual cases they are oftentimes extremely complicated.

It has afforded all surgeons a great deal of interest and hope in following the results, which have been very thoroughly, extensively and satisfactorily brought out by Dr. Coley as to the apparent value of the injections of the mixed toxins in cases of inoperable sarcoma. No one has been able to do more in the way of successful application of this procedure than has Dr. Coley himself. His results are encouragement to us all, although very few are able to so apply the remedy as to secure such magnificent results as Dr. Coley does, nevertheless we shall be and are encouraged to apply it and to resort to it under the limitations which he has so well established, viz., that wherever it is possible to remove a sarcomatous growth by surgical procedure, that should be done, barring those conditions in which it would necessitate a very serious loss of a limb to the sufferer. In every case, however, where the growth is plainly inoperable, or where a sufficiently radical operation would entail the loss of an important limb, then a resort to the toxins is justifiable, and it would seem that a very great degree of hope attaches to this use.

The speaker said that he had personally encouraged a number of hopeless cases to avail themselves of this method.

# Brooklyn Medical Journal.

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## THE EXTERMINATION OF THE MOSQUITO.

The increasing knowledge of the various species of mosquitoes which is becoming common property through the investigations of a large number of students may yet result in their practical extermination.

Dr. Doty, the Health Officer of the Port, believes so, and he has not confined his belief to faith but has likewise shown his faith by works. He has had several thousand acres of salt marsh on Staten Island in the vicinity of the station permanently ditched and drained during the past summer and the work is still continuing. Public co-operation in the work has been thus far enlisted. Late investigation has confirmed some previous beliefs, and has discovered new facts.

The mosquito pest is almost purely local.

All species of the mosquito are alike in one respect, namely, that all propagate only in water. Further than this, investigation has shown that they all with the exception of the salt-marsh mosquito (*Culex sollicitans*), deposit their eggs on the surface of the water. This species deposits its eggs on the ground of the salt marshes which is later covered by the tide.

From twelve to twenty-five days elapse, depending on the variety of the mosquito, between the deposition of the eggs and their development, through various stages, into winged insects. The malarial mosquito (*anopheles*) requires the longest period for its development.

The most abundant of the varieties is the

*Culex pungens*, the inland or fresh water mosquito. It breeds in any receptacle containing water—rain-water barrels, tin cans, roof leaders, crotches of trees and other, little suspected, places, and most abundantly in stagnant and offensive water. Dr. Doty found by experiment that similar tanks placed side by side containing pure water and water in which putrid deposits were contained, invariably showed more active life in water of the latter variety.

The malarial mosquito, *anopheles*, as might be supposed from the statement made concerning its need for a longer term of development, generally breeds in pools of water, commonly, permanent ones not contaminated, but usually, containing green scum. It also passes the larvæ state in ditches fed by springs and unused receptacles in or about houses.

The *Culex sollicitans* breeds only in salt water marshes. Dr. Doty found this species in none of the receptacles found about houses or in fresh water pools or marshes. He believes that the first crop of *sollicitans* which appears in the spring is from the hibernation of the eggs deposited in the late fall, on the ground of the salt marshes.

Mosquitoes have been found to live in captivity for a space of two months when provided with air and light, not necessarily provided with food or water.

Experiments carried out with a view to determine the length of life of these insects in clothing, blankets and baggage, established quite satisfactorily the fact that they did not survive such confinement for more than thirty hours. Dr. Doty therefore believes that no treatment of baggage coming from yellow fever ports is necessary, provided the period of transit is longer than two days.

In order to accomplish the extermination of *sollicitans*, the salt marsh mosquito, it seems necessary that public enterprise must be enlisted, since the vast tracts of salt meadows must be drained thoroughly and completely, and not merely a few acres here and there. On the other hand, the extermination of the *anopheles* and *pungens* which are usually found in close proximity to the dwellings, must depend largely upon the individual efforts of householders.

## THE AUTUMN MEETING OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

It is purposed to hold the autumn meeting of the Associated Physicians of Long Island jointly with that of the Suffolk County Medical Society.



The Suffolk County Society will celebrate its Centennial Anniversary, and historical sketches both of the Suffolk County Society and the Medical Society of the County of Kings will be presented. It is also intended to present a paper on the progress of internal therapeutics during the past century.

If satisfactory arrangements can be completed, it is purposed to hold the meeting at Greenport, one of the oldest and most interesting towns on Long Island, a locality too, where the accommodations for dining—a not unimportant consideration—are excellent and ample.

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**ALEXANDER HUTCHINS, A.M., M.D.**

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By nature Dr. Hutchins was fitted for his life work; honest and conscientious in the performance of every duty, respected by everyone who knew him for his sterling qualities as a man and physician and endowed with an intellect which was fully equipped to practice the healing art, with credit to himself and honor to his profession.

He was born in New York City, January 24, 1835, and died in Brooklyn, N. Y., on July 30, 1906. His grandfather was Levi Hutchins and his father, John Hutchins, both of New Hampshire; his mother, Julia Ann Lines, a native of Connecticut.

Dr. Hutchins was married in 1863 to Miss Mary F. Pelton, of Poughkeepsie, N. Y.; the following children were born as the result of this union:

Elizabeth Beecher Hutchins, Marion Kate Hutchins, Gertrude Hutchins, Jeannie Morrow Hutchins, Charles Pelton Hutchins, M.D., Gordon Lines Hutchins, George Pelton Hutchins.

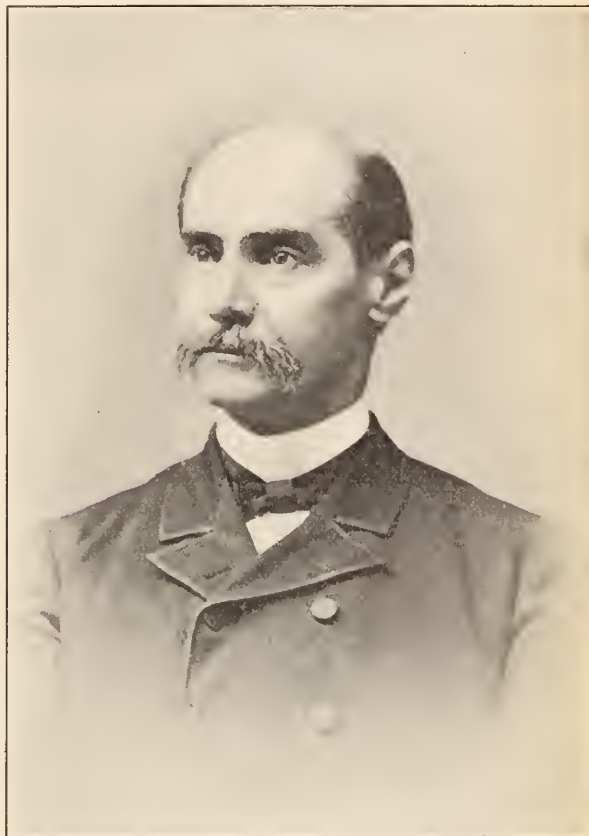
His early education was received at the Peekskill Academy, entering Williams College in 1853 and graduating valedictorian of his class in 1857 with the degree of A.B., receiving his A.M. in 1862.

His medical education was under the direction of Philander Stewart, M.D., of Peekskill, N. Y. In 1858 he matriculated in the medical department of Harvard University, and in 1859 and 1860 attended lectures at the New York Medical College, receiving the degree of M.D. in the class of 1860. This was followed as Interne in Blackwells Island Hospital and Bellevue Hospital. He was also surgeon on Steamer Star of the West. In 1861 he was commissioned Assistant Surgeon in the United States Navy, resigning in 1863, at which time he began private practice in the

City of Brooklyn, where he remained during his entire professional life.

He held the position of Attending Physician to the Brooklyn and St. John's Hospitals, and Consulting Physician to St. Mary's, Long Island College Hospitals, East Brooklyn and Bushwick Dispensaries and the Bedford Dispensary; a member of the Council of the Long Island College Hospital from 1886 to 1903.

His membership in the Medical Society of the County of Kings dates from 1866, of which he was Vice-President in 1874-75, President in 1876-



ALEXANDER HUTCHINS, A.M., M.D.

77-78, Censor in 1879-82, Librarian in 1880, Orator in 1873 and 1887-88, Trustee in 1889-90; New York State Medical Society in 1874, President in 1883, American Academy of Medicine in 1878, and the New York Physicians Mutual Aid Association. Dr. Hutchins was also a member of the Alpha Delta Phi Fraternity, Phi Beta Kappa Society, Alumni of Williams College; Trustee of Adelphi Academy, Long Island Historical Society, The Brooklyn Institute of Arts and Sciences, Hamilton Club, St. Matthews Protestant Episcopal Church, of which he was for twenty-five years superintendent of its Sunday School.

## Medical papers:

- 1874—The Condition of the Conflict—Oration.  
 1875—School Hygiene—"Merritt H. Cash Prize."  
 1876—Nitrite of Amyl.  
 1876-83—Editor—Proceedings of the Medical Society of the County of Kings.  
 1877—Jaborandi.  
 1877—Apocynum Cannabinum.  
 1880—Forced Alimentation.  
 1880—Calcium Salicylate in Serous Diarrhea.  
 1882—The Parturient Dose of Ergot.  
 1883—The Reciprocal Attitude of the Medical Profession—Address.  
 1886—Causes of Dr. Samuel G. Armour's Influence in the Profession.  
 1891—The Promise of Medical Research—Address.  
 1892—Address—Brooklyn Training School for Nurses.  
 1893—Address—Graduates of the Long Island College Hospital.

WILLIAM SCHROEDER, M.D.,  
*Chairman, Hist. Com.*

## CHARLES FRANK HERMAN, M.D.,

In the death of Dr. Herman the profession has lost a young and active member. He was born on December 28, 1869, at Waterbury, Conn., where he died on August 2, 1906. His father was Ferdinand Herman, and his mother, Elizabeth Draher, both of Germany.

His medical education was under the direction of Charles Henry French, M.D., of Waterbury, Conn., graduating M.D., at the Long Island College Hospital in the class of 1898; this was followed in the Brooklyn Hospital as Intern during the years 1898-99. He then entered upon private practice in this city.

Dr. Herman held the position of Physical Instructor in the Young Men's Christian Association at Waterbury, Conn., and in Brooklyn, N. Y.; Physician to the Polhemus Memorial Clinic and the Brooklyn Central Dispensary and Surgeon to the Brooklyn Hospital and Jewish Hospital Dispensaries.

He was a member of the Medical Society of the County of Kings from 1900, New York State Medical Society, American Medical Association and the Brooklyn Hospital Club, Brooklyn Hospital Alumni Association.

## Medical papers:

Fractures at the Elbow Joint.

Fractures at the Lower End of the Radius.

WILLIAM SCHROEDER, M.D.,  
*Chairman, Hist. Com.*

## MEDICAL NEWS.

Dr. Henry Mitchell Smith has removed to 113 Montague Street, Brooklyn, N. Y. Office hours: 9.30 to 12, by appointment.

Drs. L. G. Langstaff, W. F. Gardiner and R. C. Williams write from Lake Nipissing, Ontario, where they are taking their outing on a houseboat.

The next meeting of the Associated Physicians of Long Island is planned to be held at Greenport on October 13, though both the time and place are subject to change of plan. Dr. Frank Overton of Patchogue will present a historical paper on the Suffolk County Medical Society.

Dr. Norman P. Geis, of No. 4 Cambridge Place has had an extension consisting of three rooms built on the rear of his house which will be wholly devoted to professional work.

It is intended by the editors of *Annals of Otolaryngology, Rhinology and Laryngology* to issue a special Fraenkel Festschrift of the Annals (400 to 500 pages), this coming November, on the occasion of his seventieth birthday anniversary.

Dr. James H. Stebbins, Jr., has removed his office from 27 East 22d Street, New York, to the Medical Department of Fordham University, Fordham, N. Y.

## BOOK REVIEWS.

A MANUAL OF CHEMISTRY, INORGANIC AND ORGANIC: Covering the Synopsis of the conjoint Board and the Society of Apothecaries. By Arthur P. Luff, M.D., B.Sc. (Lond.), F.R.C.P., F.I.C., and Frederick James M. Page, B.Sc. (Lond.), F.I.C. *Third Edition, Revised Throughout.* Chic., W. T. Keener & Co., 1905. 11, v-xv, 555 pp. 16mo. Price: Cloth, \$1.75.

This is the third edition of a very satisfactory little book in inorganic and organic chemistry. It contains the more important facts relating to the subjects in such form that they can be easily understood by the student of medicine, for whom it is especially intended.

W. S., JR.

THE DISEASES OF INFANCY AND CHILDHOOD. For the Use of Students and Practitioners of Medicine. By L. Emmett Holt, M.D., Sc.D., LL.D. *Third Edition, Revised and Enlarged.* N. Y. and Lond., D. Appleton & Co., 1906. xix, 1174 pp., 20 pl. 8vo. Price: Cloth, \$6.00, net.

Dr. Holt's book has been so long and so favorably known that little need be said of this new edition, except that each revision makes it better.

Several new or entirely rewritten chapters appear in this edition, and twenty-five new illustrations have been added. The principal changes from the second edition have been made in the articles on the Examination of the Sick Child, Hypertrophic Stenosis of the Pylorus, Diarrheal Diseases and Dysentery, Vaginitis, Cerebro-Spinal Meningitis, Mental Defects, Chondro-Dystrophy, Status Lymphaticus and Diphtheria. Some of these articles appear for the first time in this edition.



# BROOKLYN MEDICAL JOURNAL

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NO. II.

## ORIGINAL ARTICLES.

### A STUDY OF THE PHYSIOLOGICAL ACTION OF THE ROENTGEN RAY.\*

BY CHARLES EASTMOND, A.B., M.D.,  
Radiologist to the Brooklyn Hospital.

To the average physician, the whole field of electro-therapeutics in its manifold forms is something weird and mysterious, and because of false conception or lack of knowledge is condemned as almost quackery or charlatanism. It is true that the whole field is but little understood and that electrical treatment of different kinds has been used by unscrupulous individuals to gull an unsuspecting public that is always ready to rush with the wildest enthusiasm to anything new, particularly if it be beyond the ken of its understanding. But the physician should not condemn a system of therapeutics and ignore it simply because it has been abused. We all know that even the members of our own profession are prone to become enthusiastic over any new idea and then, if all the earliest promises are not fulfilled, to cast it aside as useless. This has been true of every new discovery and applies with equal truth to electro-therapeutics. However, it is not of electro-therapeutics as a whole that I wish to speak to you this evening, but of a single branch of it—Roentgenology.

Over ten years have now passed since Roentgen's discovery and an almost similar period since its therapeutic application in medicine—a period sufficiently long to have allowed the pendulum to swing wide to both extremes: that of unwarranted enthusiasm and that of unjust condemnation. These ten years have been a time of trial and experimentation, and I believe that we are now in a position to review the work of those years without prejudice and to determine the usefulness of the Roentgen Ray as a therapeutic measure.

I have not time to cover the whole range of this agent's field, and consequently shall limit myself merely to a study of its action upon the tissues of the body and the results produced thereby. In other words, I shall attempt to present before you the physiological action of this powerful

agent about which the general profession knows so little, except in a superficial way, and of which we who have made it a special study can tell but little more.

In order that we may understand our subject the better, I would ask you to bear with me for a few minutes while we review very briefly a consideration of the agent itself. What is the Roentgen Ray? Wisely did its discoverer term it the  $x$  or unknown ray, but the work of the past years have brought some results and, even though we do not know what it is, we do know how it is formed and a few facts about it. These I shall review in a very superficial way.

Let us look at the excited X-ray tube and consider the physical phenomena present. The electric current passes to the cathode and is there discharged. The resulting stream, Cathode Stream, as it is called, consisting of molecules of gas, each 1-1,000 the size of a hydrogen atom, as estimated by Professor J. J. Thompson, now passes in straight lines from the concave surface from which it is given off to its focus, whence it continues as a solid pencil, though this last is now disputed by certain observers who believe that a portion of it is diffused throughout the tube. And it is this stream of minute molecules, each charged with or accompanied by negative ions of electricity that, impinging on the metallic surface of the target, becomes transformed into X-rays. How this is effected we do not know. It has been held that this change is complete and that the entire stream is converted into X-rays, but investigation during the past year has shown that this is not the case, but that a certain part is deflected as cathode rays.

In an article published three years ago, Dr. Delphey, of New York, defined the X-ray as "a form of energy produced by the bombardment of molecules against a metal plate in a vacuum of high degree." This, he went on to say, is not a form of electricity, but is the transformed energy of the electric current passing in waves which vibrate at a far higher rate than sunlight. Since that time we have been able to add but little to our knowledge, except that some have asserted that the rays are not in the form of waves, but of impulses. But whether they pass as waves

\*Read before the Brooklyn Medical Association, Oct. 10, 1906.

or as impulses, we know that the true X-rays travel in straight lines and can be neither deflected nor reflected, in distinction from the cathode rays which can be deflected by the electromagnet or electrostatic field, and that at right angles to the lines of force. (L. G. Cole.)

However, as physics is a more or less mysterious realm to me, I cannot pretend to discuss this subject.

Energy is the keynote of existence and the cessation of energy is death. Every cell in the human organism is storing up and giving off energy in one form or another. The Roentgen Ray is a form of energy and it is the acceleration or inhibition of the energy of the animal protoplasm, brought about through the external energy of the rays, that constitutes its physiological action. The theories that have been evolved to explain this will be considered later.

For our purposes of physiological study, the rays that are emitted from an excited X-ray tube, while of many different kinds and of different powers of penetration, may be placed in two groups: the so-called soft or non-penetrating and the hard or penetrating. By means of filters of various kinds we may utilize the one to the exclusion of the other, and we have found by experiment and observation that in general the soft rays affect the skin and superficial tissues without affecting the deeper, and that the hard rays pass through the superficial tissues without producing any appreciable changes and act upon the deeper to a marked degree. Different tissues react in different ways and the same tissues in different individuals, their resistance depending, according to Rudis-Jicinsky, upon the quality and chemical composition of the plasma and the amount of liquid they contain.

As I have said, we may produce marked changes in the skin. These depend largely upon the strength of the rays and the length of the exposure, and may not appear for weeks after the cessation of treatment although the incubation period is usually from 4 to 21 days. If the dose be mild and the treatments at not too frequent intervals, no changes may be visible to the eye or there may be a gradual tanning. This latter may be produced by a single short severe exposure and I have observed it in several cases where I had made an abdominal examination some weeks before, and that after an exposure of only 45 seconds. If the patient is susceptible or the dose too great, a hyperæmia or dermatitis ensues as evidenced by redness or a terra-cotta tint. When tanning occurs there are but few

epithelial changes: a deposition of pigment and a destruction of the outer layers of the epithelium which are then cast off. Occasionally there is also a "pebbling" of the skin, each pebble exuding a small drop of serum and the whole skin has a harsh dry feeling before it is shed. With this the process stops and there is a return to normal. With marked redness and hyperæmia the destructive changes may cease and a return to normal take place with but few effects upon the tissues involved, but there is a great tendency for the process to continue to a "burn" of the second degree. This condition is characterized by the formation of blebs or blisters. Here again it may cease and return to normal or continue to the next or third degree, which is one of necrosis, involving not only the skin and superficial parts, but often the muscles beneath, the whole forming a deep sloughing area which displays no effort of its own to heal.

There is still another condition seen usually only in X-ray operators in which the part, most often the hand, has a reddish or brown tint. There may be scaling present giving the appearance of a chronic eczema. With this there is more or less permanent loss of hair and deformity or loss of the finger nails. This condition is very resistant to treatment, persisting for months or even years, and not infrequently it produces papilomata which present a tendency in many cases to break down to true epitheliomata, at least half a dozen such cases having been reported during the past few years.

Now to turn to the histological changes. Oudin, Bartholomay and Darrier found in the skin of guinea pigs subjected to mild exposures, a thickening of the epidermis and an increase in the prickle, rete and nucleated epithelial cells. Juttassy found similar changes in rabbits. Unna has described, in addition, a basophilic change in the collagen of the elastic fibers. Scholtz observed that 24 hours after a severe exposure the protoplasm of the prickle cells was diffuse, their outline not so sharp as normal and that they stained more than normal cells. After seven days in the same case the whole layer of nucleated epithelial cells was loosened, very much thinned and in places absent. The prickle cells were swollen and distorted and their nuclei stained poorly. The chromatin appeared in irregular masses and the protoplasm of both cells and nuclei was swollen and filled with vacuoles. The corion was edematous, as was the connective tissue which was homogeneous and stained poorly. The elastic fibres were similarly affected, and the



hair follicles and sweat glands showed degenerative changes in the rete cells, often being surrounded by leucocytes. These are in general but little more than evidences of a severe inflammation with consequent degeneration.

Where ulceration had occurred, Gossman observed a necrotic structureless mass in the superficial portion and masses of fibers, broken-down cells and nuclei, leucocytes and disintegrated connective tissue bundles in the deeper parts.

The superficial blood vessels—arteries, veins and capillaries—share in these changes as well. There is first a proliferation of the cells of the intima and media which later become edematous and loosened, and project into the lumina of the vessels. The intersubstance is increased in amount with irregular spaces containing vacuoles, and the muscularis shows degeneration. The connective tissue is increased. Rudis-Jicinsky found in addition that leucocytes accumulate along the walls of the veins and capillaries and become fixed; while others, pyriform in shape, are dragged along by the blood current. Later the emigration of the white cells increases, they passing out between the cells of the endothelium together with an increased amount of serum. Extravasation of the red cells is slow and not marked. To summarize, the action of the Roentgen ray on superficial tissues is essentially destructive, although we may obtain an initial stimulation as evidenced by proliferation of the epithelial cells together with an increase in the growth of the hair and increase in the amount of connective tissue, but this last may be considered as a reaction, due in part at least to Nature's effort to overcome the damage done by the rays.

The blood, under the influence of the Roentgen ray, undergoes changes which are well worthy of notice. Gramegna and Quandrone of Paris in making a study of the effect of the X-ray on the blood of rabbits and guinea pigs found first of all that there was an increased coagulability. The red cells were scarcely affected, there being only a slight lessening of their physical resistance. The hemoglobin ratio was not perceptibly modified. Rudis-Jicinsky states that the spectrum is unaffected, but that there is a change in the blood serum—an increase in the amount of fibrous and albuminous elements. The white cells are, however, very susceptible to irradiation and the action upon them is almost specific.

Dr. Smith, of Chicago, believes that this is almost wholly of the mononuclear variety and reports that while giving a patient X-ray treatment, there occurred the formation of an abscess

with rise in temperature, leucocytosis and all the signs of an acute infection, but when a blood examination was made the increase in leucocytes was found to be due to an increased number of polymorphonuclear cells and not of the mononuclear. In fact there was a diminution of the latter. On the other hand, there are others who claim that it is the polymorphonuclears that suffer.

In health the X-ray will cause a lessening in the number of the white cells, but in disease of the blood-making organs this decrease is very pronounced. In a case of splenomyelogenous leucæmia, recently reported by me, there was a drop from 360,000 to 9,200 white cells after 20 treatments and that without any constitutional disturbance, but rather a steady and progressive gain in strength.

This diminution seems to be brought about by an inhibition in the development of the adult cells and an actual breaking up of the immature ones, for, on microscopic examination, we find first a disappearance of the cell wall followed by a general disintegration of the cell with some shrivelling and distortion of the nuclei, many of which float about free.

As with the white cells, so with the glands producing them. Heinecke demonstrated that in the spleen there is a destruction of the Malpighian corpuscles and cell elements. This has also been brought about in the lymphatic glands and whole chains have been made to disappear. Whether these changes are caused by the action of the rays on the blood cells, or on the cell-producing glands, we cannot say with certainty. Many theories have been advanced, but we cannot determine where the primary action occurs.

Another cellular element affected by this agent is the spermatozoon. Continued exposure to the rays results first in an absence of motility in a few of the cells, the number of them gradually increasing until all are involved. This is followed by the occurrence of fragmentary cells and finally a total absence of them. This aspermatozoic condition is not always permanent and recovery may take place. It is believed that a similar state of affairs exists in the case of the ova. Fillner and Heumann have found that in rabbits there is a degeneration of the ripened follicles in the ovary as well as of the secretory parenchyma.

So far as we know, the general circulation is but slightly affected, if at all. There is a temporary quickening of the blood current in the smaller arteries, veins and capillaries, followed

later by a slowing, but this is probably only local and does not affect the general stream.

This change is generally accepted to be due to the effect of the rays on the vaso-motor nerves—an initial excitation followed by an inhibition of the vaso-dilators—which are one of the first parts to be affected. We do not know whether this inhibition with degeneration is permanent or not.

Upon the sensory nerves, especially their endings, there is marked inhibition, if not actual destruction. This deadening of the sensory endings with consequent analgesia is one of the most pronounced effects produced and one of the most constant. It is frequently possible to alleviate, if not entirely eliminate, the distress of some of the most painful conditions with but four to six treatments. I am inclined to believe that there is a destruction of the nerve endings, for while many cases have recurrences, the relief is often permanent, there being on record several cases of trifacial neuralgia in which the symptoms have been absent for periods varying from one to two years after the cessation of treatment.

Motor nerves do not seem to be affected, but in experimental work where the rays have been used until death ensued, the spinal cord has shown a degeneration of the entire posterior horns and of the tracts of gray matter, together with considerable dilatation of the central canal from hemorrhage into it.

The rays have decided action not only upon the cells of the body as we have seen, but also upon the human economy as a whole. Of these general so-called constitutional effects, that upon metabolism is most pronounced.

Experiments by Dr. Edsall, of Philadelphia, have shown that there is a decided increase in the elimination of the waste products of the body, indicating a proportionate increase in tissue destruction. This increased excretion seems to appear almost wholly in the urine, for in the case cited there was practically no change in the nitrogen and phosphate output in the feces. In the urine, however, the daily increase in excretion, as compared with previous excretion with the patient on the same diet, was approximately as follows:

Nitrogen .....	70 per cent.
Uric acid .....	60 per cent.
Purin bases .....	260 per cent.
Phosphates .....	200 per cent.

making the average of daily increase in tissue destruction and elimination nearly 150 per cent.,

and this without any alarming symptoms on the part of the patient.

These results were obtained in a case of leucæmia, in which the diminution of the leucocytes was very rapid. In cases of gout and unresolved pneumonia in the hands of the same observer the metabolic processes were similarly affected, but not to so great a degree. The figures given represent what is really an extreme condition.

Having thus reviewed the manner in which the various tissues of the body are attacked by the Roentgen ray and the changes produced by it, we find that it is the cell which is affected. Of these, those of the skin are apt, from their position, to suffer the most. Probably next in order is the blood and the glands associated with its formation, and then the generative organs. Bone, muscle and cartilage seem to escape. But this order holds true only when the irradiation is carried on indiscriminately and without any protection. As I said near the outset, we have different rays at our disposal and we may use the one best suited to our needs to the exclusion of the others, and so affect one tissue without producing apparent changes in the others. In a general way, the law has been laid down that the tissues that regenerate most quickly are the ones that suffer the most, and the nearer a cell is to the embryonic type, the more easily it is destroyed.

Just a word now as to the question of how these changes in tissue cells are brought about. Many theories have been advanced, but few, if any, cover the field entirely. In a general way a new theory is agitated to fit each individual case as it arises. However, among those worthy of attention are the following:

1. That the X-ray is electrical and that the changes in the cells are due to a change in their polarity.

2. That it is chemical and that there is an alteration in the chemical composition of the cells.

3. That it is dynamic and that it affects not the cell itself, but the vital forces of the cells which then consequently die; and the more immature a cell or embryonic in its type, the more readily it is destroyed.

4. That there is a cytolytic action and that the cell destruction results from toxins thus formed. Serum from leucæmic patients undergoing X-ray treatment will cause a clumping and destruction of white cells in a hanging drop and also, blood from such a patient, when injected



into an animal, will produce a diminution in the white cells, showing that there is some substance formed by irradiation that possesses the power of white cell disintegration. (Smith.) Whether this holds true for other cells or not, I do not know.

To summarize, we may draw the following conclusions:

1. The exact nature of the Roentgen ray is as yet unknown.

2. Its action is essentially destructive, although we may have an initial stimulation in some cases.

3. Its action is directed toward cells, and those possessing most rapid growth are most readily attacked.

4. The *modus operandi* of these changes has not yet been positively determined.

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#### EPITHELIOMA OF THE EAR.\*

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Epithelial growths of the ear are rarely met with in private practice and but little more commonly encountered in our special clinics. Some data regarding their occurrence in hospitals are later given.

The relative frequency of occurrence of carcinomatous growths of the ear compared with those of other parts of the face is interesting; data having relation to this point are also herewith furnished.

The Annual Reports of the Brooklyn Eye and Ear Hospital show that before 1892, epitheliomata were not distinguished, in listing, from other tumors of the auricle. From 1892 to 1906 twenty-one (21) cases have been treated there. The Manhattan Eye and Ear Hospital Reports contain a much smaller number. In 1885 and 1886 one case each year was listed; since, none. The New York Eye and Ear Hospital listed in the years 1897, 1898, 1899 one case each year. The Harlem Eye, Ear and Throat Infirmary listed a case in 1905. The New York Skin and Cancer Hospital Report for the year 1904 listed the following cases of epitheliomata of adjacent regions; of the face, 28; lip, 22; nose, 8; ear, none. In 1905: of the cheek, 2; eyelid, 6; face, 22; forehead, 1; lip, 23; mouth, 2; nose, 9; ear (carcinoma of ear), 2.

Epitheliomata of the external ear are characterized by very slow development, perhaps the

slowest of any region of the body. The considerable amount of cartilaginous structure in the external ear is no doubt responsible for this. Even more than of other parts of the head, epitheliomata of the external ear seem susceptible of successful and complete eradication. A very advanced case of the writer's, which was causing much pain, foul odor and disfigurement, was eradicated. Success would seem especially likely if seen and treated early. The reason is probably the same as that given above, as the cause of their very deliberate extension, namely, the amount of cartilaginous tissue in the external ear; also because of their accessibility and consequent ease of complete eradication, when confined entirely to the external ear.

One case seen by the writer was stated to have existed for thirty-five years. Another for a nearly equal time. Two cases, which had reached an advanced stage, presented raw, suppurating ulcers with surrounding tumefaction and induration. Two on the other hand showed only deeply ulcerated, suppurating surfaces.

The most common point of origin is at the upper portion of the helix, according to Politzer.<sup>1</sup> Epitheliomata originating in the auditory canal seem to be of great rarity. The writer has seen a case through the courtesy of Dr. B. C. Collins, in a young man of 19 years which was pronounced by a pathologist to be an epithelioma.

The immediate causation of morbid growths of the external ear is not often apparent. One of the cases here figured was due to prolonged irritation from a piece of roughly bent wire used in place of a spectacle frame.

Cancer originating in the middle-ear is, on the other hand, always due to one cause, namely, long-continued middle-ear suppuration. One case of this nature has but recently come under my observation.

Cases of cancer beginning in the middle-ear must soon extend to the canal, whence they may attack the parotid gland, tongue, jaw or accessory cavities of the nose, orbit and cerebrum. Cancer may involve the middle-ear by extension from adjacent structures. Some light on the origin of cancer of the ear has been given by P. G. Unna in his work on the skin. He describes an affection occurring in men who spend their lives at sea, or constantly exposed to sun and wind, under the name of "sailor's skin." Pathological changes occur in the parts of the skin most exposed. The condition noted in sailors and longshoremen he describes as follows: "At first there appears on the ears, the adja-

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cent parts of the cheeks and temples, the backs of the hands and fingers a diffuse cyanotic redness, similar to that due to frost. Then the skin becomes mottled, spots of pigment, sometimes reticulated, becoming evident. The islands of skin between them partly lose their pigment." Ulcers form which extend laterally, the epithelial proliferations finding a hindrance in the dense plasmomate cellular infiltration beneath, which strives to encapsulate it. From this ulcer, as from every "flat" cancer, there develops an ingrowing spreading one. Specimens of tumors at this stage were obtained both from the ear and the eyelid.<sup>2</sup> Epithelioma of the external ear is first noticed by the patient as a scab or small "sore" which very gradually increases in size.

Pain is a variable symptom. It has been found practically absent in one case of very advanced growth. In another somewhat similar case seen by the writer pain was very marked. It seems to be a marked feature only at advanced stages of the disease. In one case, the severity of the pain alone was the symptom which drove the patient to seek relief. In this case its intensity seemed due to the interference occasioned with the return circulation. In the case of epithelioma of the canal, the growth was the seat of more or less constant pain.

**DEFORMITY.** In one case of the writer's a considerable portion of the lobule sloughed off *en masse* as the pedicle of skin which held it became gradually thinner, thus finally becoming self-amputated. Swelling and deformity of the ear may be slight, or reversely, very marked. In a case seen, but not here figured, the growth was but a shallow ulcer of the concha which had existed with but slight extension for many years. Another case was the reverse of this (Fig. 1). A remarkable tumefaction existed having at its most prominent part the appearance of a large, smooth sebaceous cyst, with unbroken surface. In front of this swelling and also on the posterior aspect of the ear were tumefied, suppurating ulcers. The writer regards the presence or absence of tumefaction to be largely due to the degree of interference with the circulation which the growth causes.

The history of the writer's cases is briefly given herewith.

Case I. P. H., aged 71, had a growth on his ear for twenty years. Latterly it had increased in size and had become very painful. Its appearance was somewhat remarkable, differing entirely

from any others previously observed, yet exhibiting under the microscope, as it proves, the characteristic details of tumors of its class. (See microscopic section, fig. 2).

On the posterior surface next the attachment to the head was a suppurating ulcer. Externally



Fig. 1. Case I.—Epithelioma of external ear. Drawing made from amputated ear, upper part restored. The projecting mass was more globular than the drawing shows, the formalin preservative having produced a somewhat irregular surface from shrinkage.

a large, smooth tumor projected for a distance of nearly an inch from the normal plane of the ear, and resembled somewhat closely a sebaceous cyst. The ear proper was dull, purplish red in color, apparently from congestion due to interference



Fig. 2. Case I.—Drawing of microscopic section, cut horizontally through base and body of the projecting, globular mass.

with the circulation. The canal was entered only by the smallest probe and contained pus. No enlarged glands were discovered. The ear was amputated with the exception of a portion of the helix, the upper extremity of which was cut straight across with scissors, then brought down



to the edge of the wound where it was stitched to the healthy skin edges. The remaining raw surface was drawn somewhat together with stitches, and allowed to heal by granulation. The healing was rapid and uneventful. The pain was entirely relieved from the day of operation, and it is



Fig. 3. Case I.—Photograph made shortly after amputation, while granulation was proceeding. A tag representing the upper part of the ear drawn downward and stitched to cut edge of posterior incision. By an error in printing the photograph the face is reversed, appearing as the right instead of the left side.

thought a better cosmetic result was obtained by retaining the upper portion of the helix than would have been the case with removal of the entire ear.

Case II. W. Scott, 75 years old, under observation at the Brooklyn Eye and Ear Hospital, six years ago for nearly a year, and a skilled



Fig. 4. Case II.—Photograph of epithelioma involving tragus, helix, anti-tragus, concha, lobule and auditory canal.



Fig. 5. Epithelioma of ear, confined almost entirely to the anti-helix. Reproduced through courtesy of Dr. Lutz. Case III was closely similar to this.

workman on coast-defense artillery. A man of unusual physical strength when in his prime. No history of syphilis. He attributed the cause of the "sore" on his ear to the use of a bit of coarsely twisted wire on his ear, to hold his spectacles in place. The growth involved the canal, tragus, helix and concha. The lobule, which in the picture shows a partial separation, later sloughed completely off. He declined surgical interference, and the conservative remedies applied did little but afford slight temporary relief, until he passed from the writer's observation.

Case III. A thin man of 80 years. The cancer was an ulcer depressed below the surrounding surface, involving the concha and crus of the helix. It caused him no pain. The edges of the ulcer were clearly demarked, and there was a slight amount of suppuration. He stated it had existed over thirty years. He seemed likely to outlive its very slow development. He appeared at the hospital but once.

Case IV. Georgie A. C., 48 years. The following rare history illustrates one of the possible results of prolonged middle-ear suppuration. Since childhood up to five years ago patient has had an otorrhea from the right ear with occasional attacks of pain and temporary increase of discharge. At that time she consulted the writer, who instituted a course of treatment for its relief,



Fig. 6. Epithelioma of middle-ear. Picture shows swelling of cheek and the facial paralysis at advanced stage.

but finally, satisfied that a cure was not otherwise possible, he advised a radical operation. This was performed in the usual manner, entering the mastoid and antrum, and enlarging the auditory canal so as to make of all one cavity. After the

usual subsequent treatment the discharge ceased. She was advised to report if everything was not as it should be. She returned in March, 1906, stating she had had pains for three months and a recurrence of the discharge, but hoping each day it would be relieved spontaneously, as her attacks of earache previous to the operation had been, she had neglected to return promptly. The ear appeared much as when last seen. A very scanty discharge now existed, however. She had no elevation of temperature. Her pulse, always remarkably slow, was but 60.

In the depth of the meatus was a fairly large, firm mass of granulations or what was then regarded as such. This was cauterized with the expectation that a prompt disappearance of the granulations would take place. On the contrary the severity of the pain increased and, fearing intra-cranial trouble, we advised an operation on the ear again. The whole mass was excised. The bone of the tympanic roof was soft and was freely curetted, exposing the dura in an oblong area of perhaps an inch by an inch and a half. On recovering from the anesthesia her face was carefully noted for signs of facial nerve injury, but motion was perfect at this time. On the second day, however, a slight degree of facial paralysis appeared and slowly progressed. Potassium iodide was given, but was so badly borne that it was soon discontinued. The pain, too, had not in the least been relieved. Not until now did we suspect that we had a malignant growth to deal with. Specimens of the growth from rapidly sprouting granulations confirmed our suspicions. Six weeks from the time of operation a swelling of the corresponding cheek suddenly appeared, and she could only with difficulty open the mouth. Granulations were vigorous in the canal. The swelling of the cheek finally pointed and, in hope that some relief to pain might be secured, it was incised. The abscess cavity did not involve the joint nor the parotid gland. The granulation removed from the ear rapidly reformed. The incision suppurated freely and was at times offensive. The sprouting of granulations continued from both wound and canal. The swelling of the face became no greater, but rather less. The edge of the post auricular wound became bluish and unhealthy. Pulse, which had previously been slow, became rapid and weak. An unpleasant salty taste (pus), which she had complained of since the operation, was more troublesome and the irrigations of the canal also ran into the throat at times. The pain

was severe and required the taking of morphia to control.

Injections of Coley's serum of the toxins of erysipelas and bacillus prodigiosus were begun. She finally became so weak as to be practically confined to her bed.

The effect of the last operation was thus unfortunate and seemed to hasten the development of the growth rather than retard it. Dr. Winfield tells me of one case of middle-ear epithelioma apparently successfully treated by the X-ray.<sup>3</sup> The treatment of this case by Coley's serum has been undertaken as a last resort, though cases of epitheliomatous cancer in advanced stages have been reported successfully treated by the serum.<sup>4</sup> The deeply seated locality of a malignant growth in the middle-ear practically precludes the possibility of complete extirpation. Dr. Knapp<sup>5</sup> reported a case of malignancy of the middle-ear some years since, which rapidly progressed to a fatal termination after attempts at its removal had been made by well-known surgeons and himself. Assaky,<sup>6</sup> Kipp<sup>7</sup> and numerous others have reported similar results.

As regards prognosis, epitheliomata of the external ear and the middle-ear thus differ to an extreme degree. Those confined to the external ear, even of an advanced type, may yield readily to surgical intervention. A cancer of the middle-ear, confined within a bony framework and springing from the ear structures, certainly gives the surgeon but little chance of interference with the knife. In the case reported, operation seemed to stimulate its activity. The X-ray or Coley's fluid seems to offer a possible method of cure, though this method and the X-ray are regarded as having their largest fields of usefulness or greatest likelihood of success in malignant tumors of other classes than epitheliomata. Fortunately, however, both these offer some hope of success, the case I have mentioned as treated by the X-ray and some cases of epithelioma successfully treated by Coley's fluid being examples. While Politzer recommends the galvano or lunar caustic in circumscribed cases of cancer of the external ear, I regard the knife as preferable in all but the most circumscribed. In Case I, where we were forced to use this method, it was not successful. In cases where partial or complete amputation of the ear is necessary an artificial ear can be made. Tiemann does this work in a thoroughly artistic manner.

Incidentally the last case emphasizes a fact which the ear surgeon has had to frequently



urge, that the otorrheas of childhood are capable of producing many untoward results, if neglected, and that no effort should be spared to bring about a cure at the earliest possible time.

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#### DESCENSUS OVARIORUM.\*

BY FREDERIC J. SHOOP, M.D.

Not all cases of prolapsed or displaced ovaries are subjects for radical or even conservative surgical interference; nor are all such ovaries amenable to medical, mechanical, or other non-surgical methods of treatment: neither are all deviations of the ovary from its immediate normal vicinage to be considered as pathological deviations, or requiring any attention.

We ought to be able at once, when the possessor of a prolapsed ovary presents herself for advice, to give some definite idea as to whether in her particular case she may or may not expect a cure with or without an operation, and not subject her to a useless, prolonged and disappointing treatment of an ovary which was a surgical one from the start, nor to be too ready to sacrifice an ovary which should have been saved and cured by exercising even an ordinary amount of care and patience in treatment.

Therefore, in order to arrive at a set of definite conclusions which shall be a sort of working formula with which to meet these cases, it is hoped that the object may be accomplished more by the interchange of ideas in discussion than by the few remarks chosen in the presentation of this paper.

We must bear in mind that the ovary has no normal fixed position in the body, but swings more or less within a circumscribed area approximately at the level of the brim of the true pelvis, suspended by and within the folds of

the upper part of a stretchable broad ligament; connected with the swaying end of the Fallopian tube and with a wobbly uterus by its own ovarian ligaments, and further supported by the yielding peritoneal reflexion over the uterosacral and round ligaments, sometimes called the infundibulopelvic ligament, then we readily see how easily various influences at work may disturb in greater or less degree what has been considered the normal position of the ovary in the pelvis.

Among these disturbing influences, one very frequent one is pregnancy in which condition all the ovarian attachments are put upon the stretch; after involution of the uterus these stretched ligaments do not always regain their former tone, and this allows the ovary to drop below its former plane and prolapsus results. The uterus may remain in sub-involution and sink out of its proper position, producing other varieties of displaced ovary.

However, dislocated ovaries are by no means confined to married women, or to women who have borne children, and may occur at any age from puberty to the menopause; also a small number of cases are congenital. Among the causes non-puerperal may be mentioned (a) versions or flexions, or both version and flexion of the uterus, the ovary sinking downward and slightly forward in the retrodisplacement of the uterus, downward and slightly backward in anterior displacement; (b) relaxation or overstretching of the ovarian ligaments, the ovary dropping into the posterior cul-de-sac and occasionally imprisoned there by a retroverted uterus; (c) inflammation of the ovary, prolonged congestion at the menstrual epoch, or congestion due to masturbation or excessive coitus, rendering the ovary heavy so that the extra weight drags on the ligaments, stretching them sufficiently to allow the ovary to descend, the venous circulation is interfered with by the malposition and this in turn adds to the weight and congestion of the ovary and causes still further descensus; (d) inflammation may arise in other organs or other tissues adjacent to the ovary, exudate occurs, adhesions to the ovary form which contract as time goes on and the ovary is drawn into a more or less fixed malposition.

Another factor in producing congestion in the ovary as well as in other pelvic tissues is the constipation habit together with abuse of vegetable cathartics, the irritation being kept up by bombardment of the already tender ovary by the more or less hardened fecal masses, rendering the

\*Read before the Brooklyn Gynecological Society, May 4, 1906.

ovary susceptible to further pathological changes. Of course cysts and neoplasms of the ovary will cause various displacements of that organ, but will not be considered in this paper as they do not properly come under the head of prolapsus or descensus ovariorum; and the same may be said of descent of the ovary in its endeavor to escape from the pelvis into the inguinal canal, or into the labium, in imitation of its male analogue, the testis. Again, the ovary may be carried down and drawn into the inverted uterus.

**DIAGNOSIS:** The symptom which drives the patient to the office for relief and which suggests at once to the consultant the condition likely to be found, is pain; this pain being of a shooting, sickening character referred to the right or left ovarian region at the time of defecation and lasting sometimes in the severer cases for several hours, so that the patient often puts that act off as long as possible, dreading the approach of the time when the bowels must move. In these cases also coitus is often painful, there is usually dysmenorrhea and in some cases there is reflex pain in one or both breasts and pain shooting down the thighs. Some displaced ovaries give rise to no pain or other subjective symptoms and will only be found upon examination for some other condition. Melancholia or insanity may arise in some of these cases.

In examining the patient, place her in the dorsal position, let the finger slip in and determine the uterine position and the location of the fundus, if the latter is posterior it may be quite difficult or even impossible to outline the ovary, especially if the abdominal walls are thick and fat or sensitive to manipulation and if the ovary is only slightly prolapsed and not enlarged; it may only be possible to elicit the sickening pain as the external hand presses everything down on to the examining finger; but if the ovary is enlarged and further down it is easily felt and recognized. If the fundus uteri is anterior, the finger slips into the posterior fornix and by pressure from above by the outside hand, the ovary may be felt by the examining finger; or if the ovary is lower, by turning the palmer surface of the examining finger downward and pressing high and toward the sacrum, the finger will impinge on the rounded body of the ovary which slips away and also gives the ovarian pain to the patient when pressed firmly between the finger and the sacrum. It is felt in the same manner as the last when it is imprisoned beneath the retroverted fundus. The left ovary is found more often and more easily than the right when both are prolapsed

and the right is often overlooked. If not easily felt through the vagina the finger may be introduced into the rectum, the cervix uteri drawn down with a tenaculum or volsellum forcep and the whole surface of the uterus may be palpated, the cul-de-sac of Douglas carefully explored and the offending organ discovered.

Care must be exercised not to confound some other condition with the one under discussion, so differential diagnosis must be made from scybalous masses in the rectum, pedunculated subperitoneal fibroids, parovarian cysts, anteflexed or retroflexed uterine fundus, pus tubes, hematoma in the broad ligament or in the cul-de-sac, pelvic abscess, and stone in the bladder. Occasionally the ovary is not tender and may not give the characteristic sickening pain when touched, but this is rare; a rectum may be very tender in a nervous person and give a similar pain, but the scybalous mass is usually softer to the touch than is the ovary and flattens out on pressure (thorough cleansing of the bowel will clear up this point); a pedunculated tumor is usually insensitive and harder than the ovary; the flexed fundus is continuous with the cervix and the cautious use of the sound will help eliminate this error, and the fundus is not usually as tender as the ovary though it may be nearly so in some cases; a pus tube, though lower than the associated ovary, is usually higher than is a prolapsed ovary of the same size in a case where no pus tube exists, is more of a prolonged rather than rounded mass and doughy to the touch, yet in some cases nothing but an exploratory incision will reveal whether it is a pus tube, an enlarged ovary, or both, or a parovarian cyst; the small abscess or hematoma is more diffuse than rounded, admits firmer pressure without pain, and if pain is produced it is more of a dull, achy character instead of the sharp, shooting or sickening pain so characteristic of the ovary.

What are we going to do with the displaced ovary now that we have found it? What are we going to tell the owner of it as to her chances of having it restored to the normal condition? Must she submit now or later to an operation for cure or extirpation?

Obviously, a slightly displaced ovary due to uterine deviation is cured by restoring the uterus to its proper place and maintaining it there by tampons of cotton or wool (medicating the tampon, with some of the glycerine combinations), until all tenderness is gone; then later, if necessary, a proper pessary



may be fitted to keep the uterus up, or a suspension or fixation of the uterus will complete the cure. The pessary, though condemned by many, has its use here, and if properly fitted does much good; it should not give discomfort, the patient ought not to be able to feel that it is there; it ought to maintain the uterus in place and not pinch the ovary.

In these cases of course all deviations from health, such as anemia, malaria, indigestion, pain, constipation, nervousness, sleeplessness, etc., must be looked after and met by proper medication.

There is nothing new to offer in the way of internal or local treatment to meet these conditions, but warning should be given about the abuse of vegetable cathartics for the relief of the constipation, as nearly all of this class of cathartics tend to increase the congestion already existing in the pelvic veins and other pelvic tissues, when the object should be to deplete instead. Have them use the saline laxatives, such as the magnesia or sodium salts or waters containing them, assisting when indicated with moderate mercurial doses; enemata are useful in emptying the loaded rectum, especially of moderately hot water containing one-quarter to one-half ounce of sea salt to the pint. This salt enema is preferable to soapy, or soap and oil, enemata for softening and disintegrating the hardened fecal masses, and will be found to produce a tonic effect upon the bowel, also a certain degree of local anesthetic influence and an exosmotic action on the congested tissues; at any rate get the patient out of the podophyllin, compound cathartic lapactic pill, cascara, and cascara habit, to say nothing of the various vegetable teas and "Mrs. Somebody's" vegetable compound with which she has been loading up before coming to the consultant. Electricity, in the form of the high-frequency current with glass vacuum electrode introduced into the rectum, helps to restore tone to the bowel; and with the glass vaginal electrode pushed well up into the fornix under the offending ovary and an external electrode over the ovarian plexus, a certain amount of tone is imparted to the relaxed tissues and pain is markedly lessened. Sometimes the galvanic current acts better.

Local treatment with iodine, tampons saturated with glycerine, boroglyceride, glycerine and ichthyol, etc., followed by hot water douches constitutes a routine familiar to us all in these as well as in other gynecological cases

for reducing congestion, edema and tenderness of the pelvic tissues. Above all avoid instituting a morphine or other narcotic habit for the relief of pain.

In the lesser degrees of prolapsus due to relaxation of the ovarian supports either with or independent of uterine deviation, without sufficient symptoms calling for relief, a betterment of the condition may be expected and in some instances a cure will obtain under non-surgical treatment, but we should be cautious about holding out undue assurance of complete cure because many of these cases relapse and many so-called cures return or seek some other surgeon for relief by operation.

A number of operations have been devised for these cases and for some of the more pronounced types of prolapse, among which may be mentioned: Shortening the ovarian ligament; suspension of the ovary by tacking it onto the psoas muscle; tacking the ovary to the back of the uterus; buttonholing the broad ligament, bringing the ovary through and stitching it in its new location; partial resection of the enlarged ovary and suspension of the remaining portion in one of the ways just mentioned; total resection or extirpation.

In the case of badly prolapsed ovaries which are exquisitely tender with extreme relaxation of all supports, no line of treatment is of any use except total extirpation as the ovary is already diseased and undergoing degeneration; operation for removal should be advised and undertaken as soon as the consent of the patient can be obtained.

The following case is one of a series of the moderately prolapsed ovaries illustrating the tendency to recur after cure was thought to have been established, and is selected because it has been under watchful care for a period of six years and because of one interesting point in its later history: Miss E. S., single, aged 26, living in the country, came under the care of Dr. Walter B. Chase and myself at the Central Hospital early in 1900. She was anemic, had suffered repeatedly from malarial attacks, was constipated for days at a time, had occasional diarrhea containing much thick gelatinous mucus, every movement of the bowel was painful and followed by a feeling of exhaustion lasting several hours, and she had severe menstrual and premenstrual pain compelling her to remain in bed at those times. Examination showed a retroverted uterus held by adhesions, tenderness over both ovaries, both ovaries

lower than normal and slightly anterior. Under slight anesthesia the adhesions were easily broken up, the uterus lifted into place and maintained there by a tampon. Saline laxatives, tonics, tampons, hot douches, rest and nourishing diet, put the patient in fairly good condition so that she left the hospital at the end of the month but remained in the city under my observation four weeks longer. A pessary was fitted to retain the uterus in place as there was a tendency for it to slip back into its old position and she was allowed to go home. She reported at my office several times at intervals of two months. Then the pessary was left out as the uterus remained in position after several days' watching; the ovaries both seemed to be in position. A few months later (one year from the time she first came) she returned with some of the old symptoms. Examination showed uterus in nearly normal position but the left ovary low and tender. She was tamponed again for a short time, pessary replaced and she was allowed to return home. In six weeks she reported and examination revealed the left ovary enlarged to about one and one-half inches in diameter, exquisitely painful to touch, and when the pessary was removed the ovary sagged quite low. Operation was advised and on July 4, 1901, I removed the left ovary by the vaginal route, finding it to contain a cystoma nearly two inches in diameter with most of the ovarian substance destroyed; the right ovary was palpated and found apparently normal in size and position. She made a good recovery and continues in very good health.

The point of interest in later history referred to is this: She married in the early part of 1904 and miscarried in the sixth month of pregnancy, giving birth to twin girls weighing two pounds each, one living five hours, the other two days—twins from one ovary.

She writes that she is in better health than for several years, but that when the doctor up there examined her recently he found the uterus down again and had reintroduced the pessary.

To sum up then:

1. The non-adherent ovary merely displaced with the uterus is usually cured by correcting the uterine deviation.
2. The adherent ovary should be released from its adhesions by manipulation or by operation.
3. The slightly displaced ovary, non-adherent, not tender and causing no trouble should be let

alone, but the patient warned that it may give trouble later.

4. A moderately displaced ovary, tender but not enlarged, may be cured by nonsurgical means but in many instances, perhaps the majority, relapse occurs after so-called cures and later an operation is required.

5. A badly prolapsed ovary, more or less painful and enlarged, is a diseased ovary and is never cured except by resection or extirpation.

#### THE HEMORRHAGIC DISEASE OF THE NEWLY BORN.

BY CHARLES H. GOODRICH, M.D.,  
Brooklyn, N. Y.

(Continued from page 300, October issue.)

Bacteriological Report by Dr. Moak.

The examination here reported was made in Case III. As stated by Dr. Goodrich, cultures were taken from,

- 1—The umbilical cord
- 2—Heart's blood
- 3—Liver
- 4—Spleen
- 5—The unopened colon.

Some cultures were made on gelatin, some on agar slants, and one on blood serum. They were grown at incubator temperature (98.60 F.) for forty-eight hours and then plated out.

Two organisms were isolated and the same two were found in each of the original cultures. One a bacillus and the other a coccus.

The bacillus clearly conformed in morphology and biology to the colon group and was diagnosed as the *Bacillus coli communis*.

The coccus was not so easy to classify. Its morphology was irregular. Sometimes there were many free or separate cocci, sometimes they were arranged in pairs with much of a suggestion of a capsule. But, in first cultures, there were so many that seemed to be arranged in fours or tetrads, and possessing an indefinite capsule, that it looked like the *Micrococcus tetragenus*. Later cultures showed that it grew mostly in bunches and looked like a staphylococcus.

Its biology was also confusing in that, at first, no colored pigment was observed; but in later cultures a light golden pigment developed. The odd, chromogenic function of this organism would seem to be a case in point on the disputed question, as to whether a staphylococcus produc-



ing a white pigment will, under artificial cultivation, be converted into one forming the golden pigment. But the idea is gaining ground that the different staphylococci should be considered only as varieties of one species and that the differences in certain functions are due mainly, if not entirely, to environment and habitat.

It would seem, both from the morphology and biology of this organism, that it possessed at first a marked vegetative function.

The diagnosis (with reservation) is *Staphylococcus pyogenes aureus*.

No animal inoculations were made, for it was questioned whether such inoculations would make the diagnosis any clearer.

From the widespread distribution of these two classes of bacteria in Dr. Goodrich's Case III, we must regard it from a bacteriologic point of view, as a case of septicemia of a rather aggravated form, with many hemorrhages or, briefly, as a hemorrhagic septicemia.

The point of entrance could in no way be positively determined. The port of entry of infections in new-born babies is not clear, and on some lines is now receiving much attention.

With the case in hand, the external wound would perhaps hold first place, viz., the umbilical cord. From a bacteriologic point of interest, intraplacental infection is just now receiving much attention, and, perhaps due to its influence upon other lines of work, this is a very fortunate circumstance in helping us get over the idea that certain organs and tissues are efficient filters for things so small as bacteria.

If the streptococcus, pneumococcus, Friedlander's bacillus, the typhoid bacillus and tubercle bacillus can pass through the placenta and infect the child we must believe that the staphylococcus and the colon bacillus can pass in the same way. To be sure, the list of proven cases infected in this way is small; but it is large enough and authentic enough to be much thought of in these cases of hemorrhagic disease in the newly born.

Lastly, work is now being done to determine whether, perhaps, bacteria do not play the leading rôle in the formation of colostrum, producing a varied line of enzymes or ferments and perhaps, in some instances, toxic products which may help to explain not only the subject in hand, but also icterus and other disturbances in the newly born.

Is a specific organism necessary to explain the changes met with in this disease?

Let us take under consideration the list of bacteria cited by Dr. Goodrich, as having been

isolated from these cases. It comprises: *Streptococcus pyogenes*, *Bacillus pyocyaneus*, *Diplococcus pneumoniae* (Frenkel), *Staphylococcus pyogenes aureus*, *Bacillus coli communis*, *Bacillus enteriditis* (Gärtner), *Bacillus aerogenes lactis*, and Friedlander's pneumo bacillus.

From bacteriologic studies we are growing to regard the last four bacteria named, viz., *Bacillus coli communis*, *Bacillus enteriditis* (Gaertner), *Bacillus aerogenes lactis*, and Friedlander's pneumo bacillus, as very closely related, and to speak of them as belonging to the same family, instead of noted individuals as heretofore. In the same manner it was formerly thought that there were numerous species of streptococci and now most of us believe that there is only one streptococcus that concerns us in medicine, but that it has wide variations in virulence and affects various parts of the body differently and that these properties are due mainly to its food and surroundings. In lower animals, intravenous injections of each of these organisms have produced a rapid septicemia with scattered hemorrhages, a process so rapid that suppuration could not become established. This of course meant organisms of greatly exalted virulence. They all will do the same if virulent enough. If they had been of ordinary or usual virulence, their tendency would have been to cause a suppurative process. So in this case it was a virulent and rapid septicemia. Should it have been slower or less virulent, we could have expected a suppurative process. In the light of present day knowledge, a specific organism is hardly necessary to explain the changes met with in this disease. Should these infections with hemorrhagic symptoms be considered as differing in any way from the purpura met with in other infectious diseases, viz., in severe cases of smallpox, measles, scarlet fever, or cerebro-spinal fever?

There are three interesting views as to the cause of such hemorrhage.

*First*, that the hemorrhage is simply an expression of a grave infection and varying in direct proportion to the virulence of the process.

*Second*, that a special product, a hemorrhagin, is liberated, which has the power of altering the blood or blood-vessels or both and allowing blood to leak into the tissues.

*Third*, that there may be a superadded infection by a hemorrhagiparous bacterium, an organism allied to that of chicken cholera, an organism that causes such extensive hemorrhages.

But we will not attempt here to take sides on these theories. Dr. Goodrich's Case I would

seem about as hard to explain on a bacteriologic basis as any case reported in the literature, for so many cases have a clearer explanation on the ground of external infection; but certainly in this case there could be no reasonable relation between the self-inflicted wound over the malar bone and an epistaxis and hematemesis so soon following.\*

Regarding Case II where the child simply passed some blood by stool, I have wondered myself whether it had a safe footing under the classification of Dr. Goodrich's paper or whether it might not be a case of spurious melana, perhaps blood swallowed during birth or soon after, from a slight fissure in the mother's nipple, or even a slight sucking wound somewhere in the mucus membrane of its own mouth. Yet there is the speculation in my own mind, that perhaps that there is a relationship between the mother's trouble, an albuminuria, and the trouble in the child, the intestinal hemorrhage and the subsequent period of gastro-intestinal disturbance. There is so much good work being done to show a causal relationship between the toxins produced by the intestinal flora of bacteria, where the colon bacillus reigns supreme and various lesions of the different viscera, that there might be a relationship between the conditions in the mother and the child.

Could not the same toxic products which expressed themselves as an albuminuria in the mother be transmitted to the child and hold a position of cause for the hemorrhage and gastro-intestinal disturbance?

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\*But we are not in a position to-night to deny that there may not in some cases be a toxic product in colostrum.

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#### REPORT OF A CASE OF TYPHOID FEVER.

BY JOHN R. STIVERS, M.D.,

Visiting Physician to the Kings County Hospital, etc.

This case of typhoid fever is reported on account of two rather unusual complications which occurred during the convalescent period.

The patient, W. B., was a male, 27 years of age, with good family history, although his father had suffered from albuminuria for ten years. The previous history of the patient was bad as he had been an alcoholic and had been treated for the habit in an institution by the Keeley method at the age of 25. Two months prior to his attack of typhoid he had been treated in the same institution for the cocaine habit. He also had nephritis at the beginning of his attack of typhoid. His attack of typhoid was of rather more than usual severity, his temperature keeping near 105° F. for about two weeks. During the second week he was troubled with a persistent diarrhea, having as many as 15 or 18 movements in a day, which seemed to be improved but little by the usual methods of treatment. At the end of about four weeks the temperature came down and the case seemed to be running a favorable course when he developed a phlebitis of the left internal saphenous vein. This caused considerable pain and the limb was very much swollen from the hip to the toes. There was an area of discoloration about the size of a man's hand on the inner side of the thigh beginning an inch or two below Poupart's ligament. This area was painful to the touch. The swelling of the leg disappeared in a few days by the aid of elevation and hot applications and convalescence seemed again established when the patient developed sudden severe pain in the right iliac region, accompanied by vomiting and an increase in the temperature and pulse. Without delay I called in a consulting surgeon and while the question of operation was considered, and it was decided to wait, an ice-coil was placed over the region of the appendix, small doses of calomel were given and morphia hypodermically in sufficient quantity to relieve the intense pain. Within forty-eight hours the pain had left the region



of the appendix and had gone down to the right testicle which began to show signs of inflammation.

The usual applications for orchitis had little effect either on the swelling or the pain and large doses of morphia were required for three or four days to keep the latter under control. Two weeks later fluctuation was detected and an incision was made which was followed by a copious discharge of pus. I secured free drainage and with frequent irrigations the patient finally recovered although the testicular substance was, I believe, entirely destroyed.

The authorities state that orchitis as a complication of typhoid is of rather infrequent occurrence.

I can find but little written on the subject, but those authors who have mentioned it seem to agree that it should be treated as any other case of orchitis. The opinion also prevails that there is always danger that the testicle will atrophy. Dr. J. M. Winfield states that he has seen a number of these cases with typhoid and that the cases which suppurate are likely to prove fatal by causing a septic peritonitis.

It is not unreasonable to suppose that the inflammation in the testicle as well as in the saphenous vein was caused by the introduction of the typhoid bacillus. The patient finally made a good recovery.

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#### AN OBSTETRICAL INCIDENT.

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W. C. SCHOENIJAHN, M.D.

This report is offered with a view to inviting the attention of others to a simple complication that may occur in obstetrics. It illustrates again how the little things forgotten may easily assume an importance that is serious.

Mrs. McK., 34 years of age, of rather stout build, was taken in the first stage of labor the morning of December 11, 1904. This was her fourth confinement, the first having been a forceps delivery, the second a marginal placenta previa, the third normal. In the evening, after suffering slight pains all day, she called her attendant. Examination showed the head presenting normally, though not engaged, partial dilation of cervix, and a pelvic canal apparently of normal dimensions. On the morning of the 12th the cervix was more dilated, but the head had not advanced in the slightest degree. The patient was still up and about, and in good condition. In the evening the membranes ruptured,

the pains became typically violent, the cervix completely dilated, but as time passed it became evident that the head could not engage. Towards morning the condition of affairs justified an attempt to engage the head with the forceps. Conscientious effort for nearly an hour produced no results, so under profound anesthesia a podalic version was done, bringing down first one foot, and shortly afterwards the other. Delivery was easy until the hips were born. It was then seen that the cord was straddled, passing from the umbilicus between the thighs, and as subsequent development showed, around the neck of the fœtus. The cord was pulsating normally. Attempts to draw down sufficient of the cord to pass a loop over the knee proved ineffectual, and with the slightest advance of the fœtus the cord became more constricted. There was no alternative but the tying of the cord and as prompt a delivery as possible. This was done, and in the eagerness to secure a living child the mother's perineum was deliberately sacrificed. The size of the head, however, delayed delivery so long that the fœtus was dead.

The question is not as to the probability of this individual infant's having survived a breech delivery without the complication under consideration: the mortality of the infant in breech and footling cases is variously estimated at from 10 to 30 per cent. The fact remains that the neglect on the writer's part to think of the possibility of the fœtus' bestriding the cord, and while the hand was in the uterus to place the cord where it would be safe from such danger, destroyed whatever chance the child had of surviving.

In only one of the text-books at the writer's immediate disposal is any mention made of the occurrence of this condition. Doubtless the simplicity of the complication and the obvious possibility of its happening makes any broad consideration of it unnecessary. Hirst, in the *American System of Obstetrics* mentions it in a footnote. There he says: "It occasionally happens that the child bestrides the cord; if possible the cord should be drawn down and slipped over the posterior thigh. If this cannot be done, it should be tied in two places and cut between the ligatures, and the child delivered as soon as possible."

In this case the mother made an uneventful recovery.

The writer hopes that this little confession may some day save someone embarrassing re-  
crimination.

## TRANSACTIONS OF SOCIETIES.

## THE BROOKLYN GYNECOLOGICAL SOCIETY.

A. A. HUSSEY, M.D., Editor.

STATED MEETING, MAY 4, 1906.

The Vice-President, R. H. Pomeroy, M.D., in the Chair.

PAPER: THE PROLAPSED OVARY. BY DR. F. J. SHOOP.

*Discussion.*

DR. J. C. MACEVITT said that, as a rule, in making a diagnosis of prolapsed ovary, he found that bimanual palpation requisite of greater service than the simple introduction of the finger, and where the prolapse is of any marked extent examination through the rectum is unnecessary.

Treatment by medication and tampons he was opposed to as illogical. He believed that in cases where the prolapsed ovary caused such pain and inconvenience to the patient, that she was compelled to consult a physician for relief, other pathological conditions must exist, and the prolapsus a sequence. It is true that in some cases where the prolapse was due to a retroflexion or retroversion, a Hodge pessary will at times keep the uterus in position sufficiently long to enable the tonicity of the broad ligaments to be recovered, and with that a temporary cure may result.

In the vast majority of these cases of prolapse where there is no inflammatory condition existing outside of the ovary itself, the condition is due to cystic degeneration, in which the increased weight is a factor. In these cases the removal of the cystic portion of the ovary is sufficient. The total removal of the ovary is uncalled for. It is seldom now that he removes an ovary, because a certain amount of the ovarian tissue remains intact, and by a conservative operation on the ovary, removing the diseased portion, you accomplish as much good as with total removal, and you leave the patient in a condition approaching the normal.

DR. L. G. BALDWIN said that certainly the question was one that was of very much interest, but he believed that the question of prolapse of the ovary, pure and simple, was one that, as far as he was personally concerned, could be dismissed with saying that it did not exist pathologically, or in other words that it did not make much difference what position the ovary was in; if it was not otherwise diseased that ovary was all right.

He said he personally did not know where the ovary ought to be. In most cases he had found on opening the abdomen for other conditions, that the ovaries were about as far down in the pelvis as they could get and gave no symptoms.

As to a displaced ovary in connection with posterior deviation of the uterus, he should not ascribe the symptoms in the slightest degree to the position of the ovary, only as it might become more congested with the impediment to the circulation in all of the pelvic organs, which would be relieved immediately on the restoration of the uterus to its normal position.

The speaker said he considered that the ovary that keeps down a long time may become congested and œdematous and so give symptoms. He did not see how it was possible for an otherwise healthy ovary to be displaced anterior to the broad ligament. The reader of the paper called attention to finding them there. He did not see how it is mechanically possible for the ovary to remain there for a long time, unless the tube or the ovary is diseased, causing it to reach that position.

As to the treatment he had no treatment in view of what he had already said.

The diagnosis he did not find so easy. He thought it was very difficult to feel an ovary in many patients. Of course, there are a certain few thin ones in which we can map out the ovary, but he did not think it easy to map out everybody's ovary, prolapsed or not.

DR. W. E. BUTLER said that there were one or two conditions where we could find the prolapsed ovary, and he had several cases of what we would call the sexual type, large labia minora and clitoris, in which the ovary seemed larger to him and more liable to prolapse. He thought in these states there is more liability to congestion. He believed with Dr. Baldwin that those cases of purely lower position of the ovary do not cause these symptoms. He had seen a good many cases of prolapsed ovary where coitus had been painful, and where the symptoms had been very much aggravated. The pressure of a pessary on a prolapsed ovary will also cause traumatism.

The lengthening of the utero-ovarian ligament from any cause will cause a dragging down of the ovary. That you can get many times without any symptoms at all. There is very little tenderness there. When there is no inflammatory trouble in the ovary or adnexa, he believed you get very few symptoms. Where you get a retroversion and pressure on the prolapsed ovary during coitus, you may get some symptoms.



As to the question of pus tube, the reader of the paper spoke of a pus tube as being above the ovary. He thought that was a fallacy. He thought that where you get a congestion of the tube going on to the formation of inflammatory exudates and perhaps pus in the tube, the tube folds over the ovary, and in a majority of the cases he had operated on for pus tube, he had found the tube wrapped around the ovary. In these cases you cannot feel the ovary. In these cases the painful trouble is not due to the prolapsed condition of the ovary, but to the inflammatory condition of the other pelvic organs.

As to the question of the treatment of these cases, he did not see how it is possible to hold that ovary up with any tampon or pessary. He thought it was out of the question. The very anatomical relation of the ovary would forbid that, the ovary being attached at the back of the broad ligament to the side of the uterus. The rational action of the pessary is to pull back the cervix into the hollow of the sacrum—that could have no effect on the ovary.

As to the operation of bringing the ovary through into the anterior surface of the broad ligament, that ought to be a pretty good operation, if the condition is one of prolapse of the ovary only. In a great many of these cases where the condition has been cystic, instead of whipping over the top of the ovary, he brings the two edges together in a sort of V shape, cutting it off and leaving the hilum of the ovary without bringing the ovary higher in the pelvis.

Outside of the inflammatory masses, the speaker believed that we have very few symptoms from this prolapsed condition.

DR. W. MADDREN thought that too much time had been spent in the past trying to restore or do good to prolapsed ovaries. Occasionally he has had success without operative procedure, but then the prolapse of the ovary, as Dr. Baldwin had intimated, was due to other causes, a retroverted, sometimes a retroflexed uterus. If you can keep the uterus up with a Hodge pessary, and your patient becomes pregnant, you cure the condition. That he had known to occur a few times. Of course, there the prolapse is due to the uterine condition, and by restoring that you cure the condition, so that all these cases of prolapsus are not the product of parturition or pregnancy.

The speaker thought after we have made a reasonable effort, we should make an exploratory abdominal section and do whatever may be necessary to be done. By suspending the uterus a great many of these cases are corrected. Some-

times a cyst has to be removed and the uterus suspended, and you have good results and sometimes good function afterward. It depends upon the condition that is found. Dr. Maddren thought that in the past we have done too much in a medical and mechanical way, and yet there are cases that should be subjected to that treatment for a short period of time.

Dr. Shoop, in conclusion, said that the use of tampons was of course a temporary procedure, being valuable especially in reducing congestion and tenderness and to a certain extent in maintaining the uterus in approximate normal position. He did not intend to intimate that it is easy in most cases to map out the ovary, for in some cases it is impossible to feel them at all, but there should be no trouble in doing so in the pronounced cases in which the abdominal walls are fairly thin and not tender, nor did he say that the ovary was displaced anterior to the broad ligament, but that when the uterus is tipped backward the ovaries are thrown slightly forward with the broad ligament. In spite of the fact that the relation of the pus tube to its associated ovary is usually much disturbed, he maintained that a small or medium sized pus tube with its ovary is most generally in a little higher plane than is a prolapsed ovary enlarged enough to render it liable to be mistaken for a pus tube; of course, as he said in the paper, an occasional case will arise in which nothing but an operation will reveal which it is.

True, as Dr. Maddren said, some of the milder cases of prolapse with uterine deviation are cured by pregnancy, or at least experience relief while in the pregnant state, and this should be borne in mind when a woman afflicted with a prolapsed ovary consults her physician as to whether she ought to marry. But pregnancy cannot be relied upon as a therapeutic measure owing to the fact that some of the cases do not become pregnant. Many occur in the single who do not intend marriage, and some who are married have suffered so much that they have lost their love for those organs and all desire for progeny and are ready for any measure, even to a laparotomy, which promises relief.

Dr. Shoop agreed with all the speakers on the point that a decidedly prolapsed ovary is a diseased ovary, and one which demands surgical relief, but stated that even in some of these cases which for reasons of their own refuse operative interference, the local and mechanical methods do give a certain amount of comfort and have to be resorted to.

## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, OCTOBER 16, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

There were about 150 members present.

The meeting was called to order and the minutes of the previous meeting were read and approved.

### REPORT OF COUNCIL.

The following candidates for membership have been accepted by the Council:

Edward John Murphy, 773 Carroll Street.

Charles E. Wuest, 1024 Bushwick Avenue.

### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

John L. Baker, 699 Putnam Avenue, L. I. C. H., 1905.

Proposed by C. G. Crane, seconded by V. W. Weed.

Siegfried Block, 848 Greene Avenue, L. I. C. H., 1905.

Proposed by C. G. Crane, seconded by Membership Committee.

R. O. Brockway, 13 Greene Avenue, L. I. C. H., 1905.

Proposed by W. F. Campbell, seconded by Membership Committee.

Charles E. Manning, 480 Putnam Avenue, L. I. C. H., 1897.

Proposed by W. F. Campbell, seconded by Membership Committee.

George B. Stanwiz, 1170 Dean Street, Albany Medical College, 1898.

Proposed by J. E. Sheppard, seconded by Membership Committee.

Ernest K. Tanner, 1042 Bergen Street, U. and B., 1904.

Proposed by J. H. Long, seconded by W. S. Hubbard.

William G. Terwilliger, 616 Hancock Street, P. & S., 1894.

Proposed by C. G. Crane, seconded by Membership Committee.

Franklin J. Vose, 65 Somers Street, N. Y. Univ., 1886.

Proposed and seconded by Membership Committee.

Joseph W. Walsh, 154 McDonough Street, L. I. C. H., 1897.

Proposed by E. J. Morris, seconded by J. A. Lee.

### HONORARY MEMBERSHIP.

Dr. Willard Parker, of Manhattan, was proposed for honorary membership by Dr. J. P. Warbasse.

By direction of the Council, the Secretary read a letter from the Bureau Brooklyn of Charities addressed to the Kings County Medical Society, in regard to their work in the care of tuberculous people.

### SCIENTIFIC SESSION.

1. ADDRESS: PRESENTATION OF THE MEDICAL LIBRARY (4,000 VOLS.) OF THE LATE DR. WILLARD PARKER, A GIFT TO THE LIBRARY OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS FROM HIS SON, DR. WILLARD PARKER, OF NEW YORK CITY, BY JAMES PETER WARBASSE, M.D., DIRECTING LIBRARIAN.

2. ADDRESS: "THE TREATMENT OF CERTAIN CHRONIC INFECTIOUS PROCESSES," BY LEWELLYS F. BARKER, M.D., PROFESSOR OF MEDICINE, JOHNS HOPKINS UNIVERSITY.

. Adjourned.

JOHN A. LEE, *Secretary*.

### OPHTHALMOLOGY.

BY JAMES W. INGALLS, M.D., AND JOHN OHLY, M.D.

#### INDIRECT INJURIES TO THE OPTIC NERVE.

Evans (*British Medical Journal*, No. 2,323) gives the history of five cases in which an injury, near the outer angular process of the frontal bone, caused incomplete blindness on the affected side. Such cases have frequently been reported and were explained as fractures of the skull, with an injury to the optic nerve. Evans' cases, after the blow, suffered from diminished vision and a loss of the greater part of the temporal field.

During the first few weeks no changes could be made out by the ophthalmoscope. However, optic atrophy developed later.

The nature of such injuries is problematic. The lesion may be due to a fracture through the optic foramen, to laceration of the nerve by a bony spicule, to a hemorrhage in the sheath or to a contusion of the nerve itself. After repeated experiments on the cadaver and as a result of clinical observation, Evans concludes that the conditions in question are due to contusion by contre-coup through the fibres of the optic nerve. In consideration of this fact these cases must be treated as those of cerebral contusion. Absolute rest and restricted diet are essential for recovery.



# Brooklyn Medical Journal.

WILLIAM C. BRAISLIN, M.D.  
Editor-in-Chief.

JAMES P. WARBASSE, M.D.  
JOHN A. LEE, M.D.  
Associate Editors.

CLARENCE R. HYDE, M.D.  
Medical News Editor.

G. L. HARRINGTON,  
Business Manager.

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BROOKLYN-NEW YORK, NOVEMBER, 1906.

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## THE PURE FOOD LAW.

A national pure food law has successfully passed both houses of Congress at Washington. Bitter opposition marked its progress, but its passage was facilitated by the recent exposition of the methods of the meat packers and perhaps by its being coupled with the drug, patent medicine and liquor legislative provisions. It is a matter for congratulation that the law has been passed. Every physician has long been aware of the need of more stringent legislation regarding the manufacture and sale of pure drugs, patent medicines and fermented liquors and regards the passage of the law as a victory of no ordinary sort.

Considerable hardship will be entailed, at the time of its taking effect, upon many manufacturers of food products who desire to comply with every provision of the law, at the same time aiming to increase the sale and broaden the field for the demand of their products. Manufacturers of canned foods have found that the rough handling and variations of climate to which their products were necessarily subjected in shipping required some method of preserving more potent than was needed when used in the immediate locality where they were made. For this purpose, as physicians have been generally aware, the salicylates and benzoates of sodium, as preservatives, were resorted to. Varying quantities were used according to the treatment which the contents of the packages were expected to re-

ceive. Catsups, for example, which must stand uncorked at varying temperatures and varying periods, and in climates of warm as well as cold regions, had to be treated to considerable amounts of preservative in order to remain fit for use.

Tins of canned vegetables required less, since their entire contents are used as soon as opened. For improving the appearance of these however, chemicals have been freely used. Jams and jellies which are not sealed hermetically at the factory, and which are often subjected to a deal of rough handling before they have reached the consumer, were believed to require some preservative.

All these and various other food products must now, under the new law, be labeled with the proportion of preservative contained therein.

To many consumers the fact that any artificial preservative is used will come as a surprise, and it will not likely appear of moment whether the amount used is large or small.

The manufacturers anticipate a falling off of their sales when the law goes into effect.

Much will depend on the attitude of the practitioner of medicine as to how far the decrease of sales of these food products will extend and how long it will last. The individual opinion of physicians will no doubt vary on this point, and probably their views concerning the different food preparations will be influenced by the amount of preservative which a given product contains.

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## BREAKFAST FOODS.

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No provision of the pure food law affects the cereals, nor will the output be diminished by the passage of the law.

The very extensive use of cereal preparations in the last decade or two in America has been greatly stimulated by the advertisements of the manufacturers of the so-called "breakfast foods" or "prepared cereals."

The claims of the manufacturers that their preparations are more wholesome, nutritious and easily digested are based on the plea that special processes of milling, cooking, crushing and so on have been introduced. These claims are so plausibly worded that the average person is inclined to believe that their values as muscle and brain builders are really considerably increased by the processes used in their manufacture.

Dr. Bartley, Professor of Chemistry at the Long Island College Hospital, has investigated

nearly one hundred samples of prepared cereals, with a view to determine what food value the manufactured or prepared cereals have.

The full results of his investigation will probably soon be published, but he has allowed us to make use of his investigations and to give his conclusions.

The cereal breakfast foods sold in packages contain, in almost every case, as much food value, weight for weight, as the cereals of which they are composed. Their ingredients are wheat, corn, oats, barley and rice, respectively, or they are mixtures in varying proportions of two or more of these. No preservative or adulterant is contained in any of the cereals so far as investigation shows. Some of the cooked or semi-cooked and crushed or rolled prepared foods require less cooking than the unprepared grains, but these on the other hand are more subject to fermentation or "souring." He believes he has traced to this source some of the eruptions in children.

As a rule the unprepared oatmeals and other cereals and most of the prepared cereals reach the table insufficiently cooked. Many of them should preferably be cooked or, at least, soaked in water over night, when intended for serving on the following morning.

The only possible advantage of the prepared cereals over those bought in bulk is that some may require less cooking, while at the same time they are more subject to the attacks of fermentation-bacteria.

In process of preparation or manufacture, their bulk, as a rule, is very greatly increased, thus bringing the cost, bulk for bulk, very much higher in the case of the prepared article.

The "ready-cooked" cereals have largely displaced the older broken-grained cereals, but many of the former are found to be insufficiently cooked—the cellulose envelopes containing the starch granules unbroken—while in those in which this envelope is disintegrated by cooking or bruising there is a likelihood of early decomposition of the starchy ingredients.

The possible advantages of the prepared article are, novelty and apparent variety, and less necessity of prolonged cooking. In the case of the old style, cracked grain cereals, there is greater resistance to degenerative changes if stored for any length of time before use and a very considerable saving in the cost of a staple article of food, which, if properly prepared, ranks high in relative food value.

#### THE BROOKLYN EYE AND EAR HOSPITAL.

The project of widening Livingston Street had been before the public for so many years that those whose interests would be directly affected by it had long since lost all hopes and fears; and when it suddenly became a reality, no one whose property was condemned was prepared for this striking change.

Fortunately few public buildings were along the condemned line, and the Brooklyn Eye and Ear Hospital was probably the only one seriously affected by the necessary demolition.

The building of this institution had a frontage on Livingston Street of fifty-one feet. Standing four feet back from the building line, it lost but twenty-six feet in the thirty-foot widening of the street. But this loss from a building of wholly inadequate size, rendered the continuance of its work a physical impossibility.

The hospital property consisted of three lots on Livingston Street and two lots on Schermerhorn Street. The original building, forty-five by seventy-eight feet, was the old "Juvenile High School" and was enlarged and remodeled for the work of the hospital in 1882. Since that time, besides a general remodeling of the interior, many additions have been made to meet the growing demands of the hospital until nearly all the space on Livingston Street side was occupied. But these many additions did not keep pace with the rapidly increasing growth of the hospital, and a sudden loss of nearly one-quarter of the floor space of the building by the condemnation of its front for widening the street was a very serious matter.

For several years the Board of Directors had been considering the erection of a new hospital. Although the hospital property comprised five lots, the shape of this plot was unsatisfactory for the kind of a building needed for the work of the institution, unless a very large sum were to be spent in its construction; but no other site which could be obtained seemed so desirable. With these problems, as well as with the financial one, the Board of Directors was struggling, and no new building was in sight when the calamity came of the destruction of a large part of the working space of the hospital.

Most fortunately, just at this time, the Board of Directors was able to secure three lots on Schermerhorn Street, adjoining the two already owned by the hospital, and directly in the rear of the Livingston Street building. This plot had a building with a frontage on Schermerhorn



Street covering its entire length, with a depth of forty-two feet; on the rear of the plot was a building of slightly smaller dimensions and the two were joined by a wing on the west. These buildings came in direct contact with the hospital building on Livingston Street. They were originally built for factory purposes, but were remodeled several years ago at considerable expense by the Board of Education for school work, and had been occupied successively by the Manual Training School and the Commercial High

widening of Livingston Street and the demands by the city to vacate immediately the condemned premises threatened to throw the hospital out of a home. The Building Committee saw, in the acquisition of the adjoining property on Schermerhorn Street, the possibility of a temporary home and at once set about to make a virtue of necessity.

Mr. Ernest Greene, architect, of No. 5 Beekman Street, New York, was called in consultation and the discovery was made that it would



REMODELED FRONT, EYE AND EAR HOSPITAL.

School. The lease held by the city was just expiring, and the Commercial High School was about to move into its new home, when the Board of Directors purchased the property.

The Building Committee had for several months been working on the problem of a new building and had developed plans for a building which should have a street frontage of one hundred feet and a depth of eighty feet, with four stories, basement and sub-cellar. This was to be of iron and brick construction thoroughly equipped in the most modern manner for the large work which the needs of this great city demand in the care of the poor, suffering from diseases of the eye and ear. The estimated cost of this building was \$200,000.

But the final hurried condemnation for the

be possible to get out of the old buildings all that the Building Committee had planned in the new building, with no loss as to equipment and working utility and with a saving of three-fourths of the expense, and that the necessary alterations could be made without seriously disturbing the work of the hospital. Mr. Greene was engaged as supervising architect, the plans prepared by the Building Committee as a program of the new building were submitted to him, and these he most cleverly adapted to the old buildings with astonishingly few variations—necessary changes being often an improvement on the original plans.

The accompanying plans show the remodeled buildings. Besides the floor plans, the front elevation on Livingston Street is shown. After cut-

ting off about twenty-five feet—back to the new building line—the original front was restored with some changes for architectural improvement. This, therefore, remains a familiar landmark.



FLOOR PLAN, BASEMENT

What is left of the Livingston Street building will be used for administrative purposes, apartments for the superintendent's family, the resident staff, nurses' home and private-room service. The Schermerhorn Street buildings will be used for the dispensary and for charity wards.

The interior of all the buildings is being remodeled. All the plumbing will be new and of the best modern type: a new steam heating plant will be installed with high and low pressure boilers: the clinics and hospital wards will have the most approved system of forced ventilation: there will be a modern steam laundry: the house will be lighted throughout with electricity: the elevator will be new, run by an electric motor and automatically operated: there will be a sterilizing plant for clothing, bedding, etc., and a crematory for refuse: all bath-rooms, toilet-rooms, wash-rooms, operating-rooms, surgical dressing-rooms and diet kitchens will have either tile or composition flooring, with wainscoting of tile or slate: every bed in the hospital

(except in the children's ward) will have an electric call bell connected with an annunciator at a nurses' station: there will be a private telephone exchange with twenty stations, every private room having a telephone.

It is a disappointment to the surgical staff not to have a more imposing structure in a building of architectural beauty, which would be an adornment to the city and worthy of the cause and the great work: but there is also a great unanimity of feeling that the result will be a very complete plant and a working outfit which will in no way prevent the best work and that the hospital will be amply equipped from the modern viewpoint.

Only two blocks from the City Hall, the hospital stands in the center of accessibility to the



FIRST FLOOR, LIVINGSTON STREET: SECOND FLOOR, SCHERMERHORN STREET

immense territory which it serves. Its situation insures exceptional advantages of light and air. The hospital property which remains as free space comprises two lots on Schermerhorn Street, a yard about twenty feet wide on Livingston Street and one large and one small interior court.

The former capacity of the hospital for indoor patients was thirty-nine beds: the enlarged hospital will have eighty-two beds: space provided for dispensary work will be more than doubled.



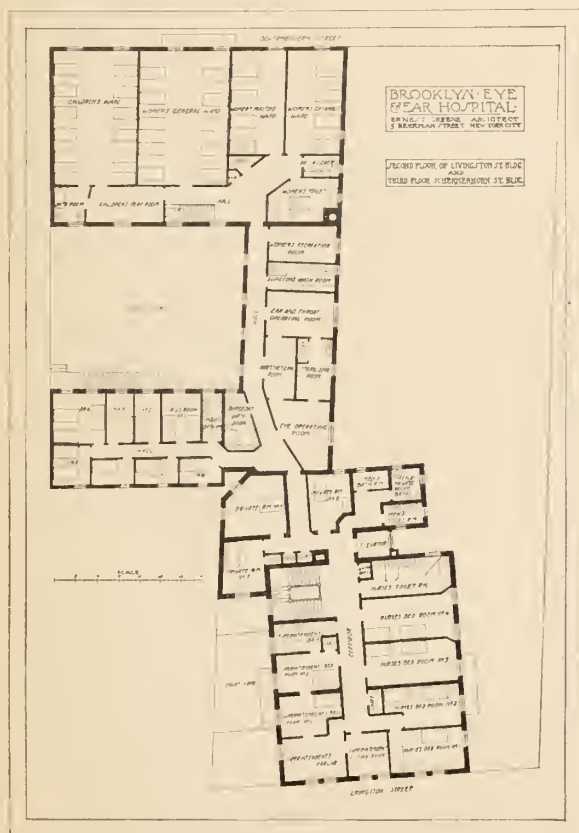
The work of reconstruction was begun about the first of July and will be finished about the first of January.

The hospital was opened April 15, 1868, in a small private house at the corner of Washington and Johnson Streets—now covered by the Post Office—with a staff of two surgeons and two assistant surgeons. About two years later it was removed to a more commodious building—still a private dwelling—at 208 Washington Street, where it remained until it found its present home in May, 1882.

In its early history the hospital was exclusively for diseases of the eye and ear. From time to time provision has been made for other special branches of medicine, and now there is a daily clinic for rhinology and laryngology, a clinic for dermatology twice a week, and a clinic for neurology twice a week.

The hospital staff now numbers fifty-nine.

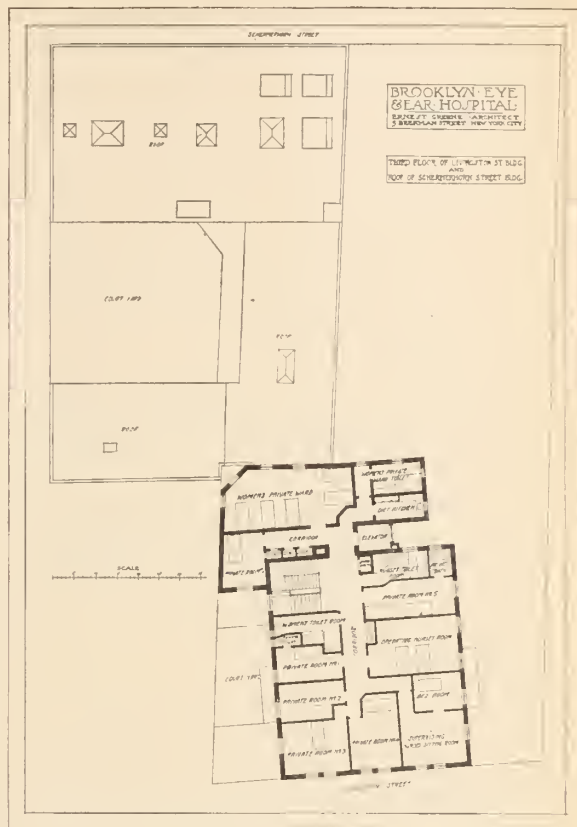
During the year 1905 the number of new patients was 16,461; the number of visits during the year was 62,491—a daily average of 206; the number of operations was 3,156.



SECOND FLOOR, LIVINGSTON STREET AND THIRD FLOOR, SCHERMERHORN STREET.

Although the hospital will have greatly enlarged capacity—more than double that of the

old building, and more than enough to meet the present needs—the history of its growth suggests that only a few years will bring about the need of a larger building, which may perhaps



THIRD FLOOR, LIVINGSTON STREET SIDE.

combine with utility and interior equipment the exterior architectural effects which will rival, in appearance, some of the more ornate hospital buildings in this great city.

WILLIAM SIMMONS, M.D.,  
*Chairman of the Building Committee.*

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Nathaniel Matson announces his removal to 1249 Pacific Street.

Dr. Lester P. Hoole has removed to 974 St. Marks Avenue.

Dr. Charles Lloyd has removed to 413 Clinton Street.

Dr. John L. Crofts has removed to 418 Clarkson Avenue.

Dr. Robert J. Morrison, of 354 Tompkins Avenue, sailed for England on September 15th. He will remain in London for several weeks, and will also visit well-known surgical clinics in Paris.

The twenty-sixth meeting of the Associated Physicians of Long Island was held at the Court House, Greenport, L. I., October 13th, in conjunction with the Centennial Meeting of the Suffolk County and the Queens-Nassau County Medical Societies.

The fall meeting of the Association of the Ex-Internes of the Long Island College Hospital was held at the residence of Dr. James Watt, 174 Clinton Street, Monday evening, October 29th. Dr. William Pool presided. The paper of the evening, "The Treatment of Constipation," was read by Dr. Joseph Merzbach, and discussed by Doctors McCorkle, Read and West. A light collation followed.

Dr. Francis H. Stuart, of 123 Joralemon Street, attended the annual meeting of the British Medical Association at Toronto, Canada, in August. Dr. Stuart is one of the few Americans who have the honor of being members of this Association. Dr. Stuart discussed McMurtry's paper on "The Treatment of Puerperal Sepsis," and took part in the joint discussion of this paper and that of J. Murdock Cameron, of Glasgow, Scotland.

Dr. P. H. Berlenbach, of 9 Stuyvesant Avenue, has recently returned from an extended trip through Alaska, along the Pacific Coast and other points of interest.

Dr. John O. Polak, of 287 Clinton Street, read a paper on the "Surgical Treatment of Puerperal Sepsis" at the eleventh annual meeting of the New Hampshire Surgical Club, Hanover, N. H., October 2d. At the dinner of the club, Dr. Polak responded to the toast "A View from Without."

Harvard's new medical school buildings are described as the best collection of structures in this country and as forming the best equipped medical school in the world. The buildings are of white marble and three years have been spent in their building, which cost \$5,000,000. The group forms a quadrangle, consisting of an administration building and four large laboratories.

The central or administration building is approached from the lawn by a broad marble staircase. The six Ionic columns of the portico are over fifty feet high and support an entablature and cornice above which is a slight suggestion of a pediment, in the center of which is the Harvard coat-of-arms. The laboratories will be devoted to anatomy, histology, operative surgery and comparative anatomy, X-ray photography, bacteriology, pathology, special rooms for research work, physiology, chemistry, hygiene and pharmacology. J. Pierpont Morgan contributed \$1,185,000 and Mrs. Collis P. Huntington \$250,000 towards the building fund.

Dr. Jerome B. Thomas, L. I. C. H., '92, has removed to 30 Schermerhorn Street, and also has an office at 49 E. 30th Street, Manhattan. Dr. Thomas will specialize entirely in the eye and ear.

Dr. William C. Woolsey announces his special medical interest to be the administration of anesthetics and his desire to serve the profession in the capacity of anesthetist.

The Annual Meeting of the Suffolk County Medical Society was held at Riverhead, October 25, 1906. An address by Dr. W. H. Ross, the President of the Society, was delivered. There were also papers by members, as follows: "Hypnotism," by Dr. F. C. Eastman, of Brooklyn; "Psychic Epilepsy," by Dr. George A. Smith, of Central Islip; "Trachoma," by Dr. S. B. Allen, of Riverhead.

The opening of the new building of the Manhattan Eye, Ear and Throat Hospital was formally celebrated at its new site, 64th Street and Third Avenue, on October 30th.

Dr. A. H. Buckmaster, lately Professor of Gynecology in the University of Virginia, has returned to this city and opened offices at 76 Pierrepont Street.

The Woman's Hospital Society of New York has elected the following officers for 1906-7: President, J. Dougal Bissell; Vice-President, Edward W. Pinkham; Secretary and Treasurer, Reginald Rawls; Editor, Herman Grad; Executive Committee—George H. Mallett, D. S. D. Jessup and Clarence R. Hyde.

Dr. John Milton Holt, L. I. C. H., '95, and passed assistant surgeon in the Public Health and Marine-Hospital Service, has been ordered to proceed from San Francisco to Astoria, Oregon, and assume command of the service at that port.



# BROOKLYN MEDICAL JOURNAL

VOL. XX.

BROOKLYN-NEW YORK, DECEMBER, 1906.

NO. 12.

## ORIGINAL ARTICLES.

### THE TREATMENT OF CERTAIN CHRONIC INFECTIOUS PROCESSES.\*

BY LEWELLYS F. BARKER, M.D.

Professor of Medicine, John Hopkins University.

The bacteriologists have been teaching us a good deal about the nature of infection of late years, and it is the duty of those of us who are clinicians to go to work and apply in diagnosis and therapy the facts that the bacteriologists have discovered. We have been shown what the process of infection means; we now know how the human body, and other animal bodies enter into competition in the struggle for existence with minute living parasites. We know a good deal about the mechanisms of defence in the human and animal body, and how they are overcome. We have been taught much about the mode of entry of microscopic parasites—the bacteria and the protozoa—into the body; we believe, for instance, that some parasites come in by one door only, *e. g.*, the cholera bacillus enters only through the intestinal epithelium, the typhoid bacillus probably through the intestine; whereas many other parasites enter by various ways; the staphylococcus or the streptococcus, for instance, can come through many doors into the human organism.

We have learned something about the process of incubation. The time of incubation appears to be simply the period when the organisms are multiplying, so that they become numerous enough to cause some appreciable effect in the organism, and we are finding out how these effects are produced. We distinguish between the effects which the toxins produce, and those due to the bodies of the bacteria and protozoa themselves. When invading micro-organisms enter the body, and gain a foothold there, they sometimes settle near the place of entrance and give rise to a local lesion only, not being distributed beyond that point, as in an ordinary boil or local abscess. Sometimes on multiplying they spread by direct continuity of surface; the gonococcus, for instance, may not confine its growth to the urethra, but may extend into the prostate or the bladder, or the gonococci may travel up the

ureter to the pelvis of the kidney. Sometimes the bacterial infection spreads by metastasis, a primary focus of infection giving rise to secondary local infections in some other part, not immediately adjacent; for instance, from a boil, or furuncle, under certain conditions, bacteria may enter the lymphatic channels or the blood vessels, and, once in the blood, be carried to distant parts of the body, where they lodge and set up "metastatic infection"; or streptococci, on the tonsil, may not limit themselves to growth on the tonsil itself, with production of tonsillitis, but may get into the blood current, in small numbers, through the lymph channels, and finding lodgment on the heart valves, cause endocarditis, or, on the synovial membranes of the joints, causing polyarthritides.

Typhoid fever, which was formerly thought to be largely an intestinal infection, is now known to give rise in almost every case to metastatic infections of the spleen and skin. Every rose spot on the abdomen in typhoid is an instance of metastatic infection of the skin, for it has been demonstrated that the rose spots contain living typhoid bacilli. A certain number of typhoid bacilli get into the blood from time to time, and are filtered out by the organs. Sometimes the microbes may actually multiply extensively in the blood itself, instead of being merely transported by the blood, and then we have to deal with a true septicæmia in the bacteriological sense. I may remind you of the general streptococcus and staphylococcus infections; quartan malaria is a typical generalized protozoan invasion of the blood.

The same organism may in one case of infection be distributed in one way, and in another, in another way. Think for a moment of the varying behavior of the gonococcus. Sometimes it stays in the urethra; sometimes it extends to the prostate and bladder; sometimes it forms metastatic infections, a few bacteria going over into the blood, to be carried to a heart valve (gonococcic endocarditis), to a joint-membrane (gonococcic arthritis); rarely the gonococci may multiply rapidly in the blood and give rise to a true gonococcic septicæmia.

The bacteriologists have shown us further how these parasites which cause infection often have

\*Read before the Medical Society of the County of Kings, Brooklyn, October, 1906.

a predilection for a certain tissue; for example, the bacillus of leprosy, when it gets into the body, has a particular affinity for the nerve trunks and multiplies in them; whereas the cholera vibrios multiply chiefly in the intestinal epithelium; even if you inject cholera vibrios into the blood, they rapidly disappear from the blood and become localized in the intestinal epithelium. Similarly if the gonococcus gain entrance to the blood, it is likely to be picked out by the susceptible joints, which accounts for the metastatic arthritis which so often occurs in the course of gonorrhœa. Other bacteria, like the staphylococcus, the streptococcus and the pneumococcus, have less limited predilections; they may settle and multiply in any one of several of the tissues or organs of the body.

We have begun to find out also how microscopic parasites struggle with their hosts in order to maintain their footing in the body. The natural mechanisms of defense are overcome in various ways. The production of poisons of various sorts have been carefully studied, and we hear much nowadays of toxins, endotoxins, lysins, aggressins, antigens and the like. There is thus quite a variety of poisons produced by bacteria for overcoming the mechanisms of defense in the body.

I need not delay to speak on the topic of virulence or on the local effects produced by bacteria in the animal body. Certain general phenomena associated with infection are familiar to all—leucocytosis, or, in some cases, leucopenia, fever, or, occasionally, subnormal temperature, hemorrhagic diathesis, splenic tumor, anæmia, general disturbances of nutrition in the organs, parenchymatous degeneration of the kidney, changes in the nerve cells, are some of them. Formerly we spoke of them as “symptoms of infection”; now we are more inclined, on account of the difference in view-point, to refer to them as “biological reactions” which take place in the body during infection. That it is on account of the biological reactions which occur that the susceptibility of the body to subsequent infection of the same sort is altered, we are gradually coming to learn; in other words, we are gaining an insight into what happens in the natural cure of infection, and why it is that after an infection has run its course, in many instances, the body is, for a time at least, protected against a repetition of the attack.

In the study of infectious processes it is customary to differentiate more or less sharply the acute from the chronic affections. Diseases like

typhoid, cholera, plague, pneumonia and influenza as a rule run a very acute course; the organism attacked is quickly killed, or the patient soon recovers. But in chronic infections there appears to be no very marked tendency to spontaneous cure; the diseases continue for a long time. Tuberculosis, leprosy, and actinomycosis are types of chronic infectious processes with but little tendency to spontaneous cure. The distinction between acute and chronic infectious processes, however, is not a hard and fast one. We know that certain processes ordinarily acute may become chronic, and, again, some of the infections usually chronic may pursue a very acute course; for instance, gonococcal infections, so frequently acute in the urethra, only too often give rise to a chronic process there or in the prostate and seminal visicles; tuberculous infections, usually chronic, are not always so.

The bacteriologists in their studies of the natural cure of infections and of the production of immunity have discovered that a variety of reactions must be considered. In “antitoxic” immunity there is manufactured in the body of the infected animal a substance which neutralizes the soluble poisons (toxins) produced by the bacteria; this antitoxic immunity we are familiar with in diphtheria and in tetanus. But in the vast majority of infectious processes there is no marked antitoxic immunity acquired; the biological reactions give rise more often apparently not to an “antitoxic” but to an “antibacterial” immunity; thus in the course of typhoid fever or cholera, the cure is not brought about by the production by the body of substances which neutralize the soluble toxins manufactured by the typhoid or cholera bacilli, but, apparently by the elaboration of substances, which prevent the further life and growth of these bacteria in the body. Just in what this antibacterial immunity consists we are sometimes in doubt. It is now known that the body produces a series of different substances which combat invading bacteria. One kind of such substances is to be seen in the materials which appear in the blood of patients suffering from typhoid fever, for example.—I mean, the agglutinating substances upon which the Grüber-Durham-Widal reaction depends. These “agglutinins” tend to make the typhoid bacilli adhere to one another in clumps. Then another set of substances, the so-called “bactericidal substances,” actually kill the bacteria, and still another set, the so-called bacteriolytic substances, not only kill the bacteria, but dissolve them up. Finally there is a set of substances



which do not kill the bacteria, which do not clump the bacteria, and which do not dissolve the bacteria, but which do so modify the bacteria as to make them suitable food for the phagocytes of the body; in other words, these substances so sensitize the bacteria that the leucocytes are enabled to engulf and digest them. These bodies, which have been studied especially by Wright of London, are the so-called "opsonins." The term is derived from a word which means to provision, to cater to, to purvey, to act as a sauce, so that these substances, in the figurative language of Wright, act as "sauces" on the bacteria, so that they are transformed into a "desirable" food for the leucocytes.

While some infectious processes yield an almost permanent immunity once a single attack has run its course, others yield an immunity for a short time only, and still others apparently yield no immunity at all. In diseases like tuberculosis and leprosy, for instance, it is hard to find much evidence of acquired immunity to the diseases; such diseases are but too prone to go on through the whole lifetime of the patient.

I shall not take up your time and delay the particular part of what I have to say by discussing the various theories of antitoxines, agglutinins, bacteriolysins, hæmolysins, etc. These theories are somewhat complex when you hear or read about them for the first time, but those of you who have worked through them know how simple they are. The side chain theory of Ehrlich looks complex and abstruse, but it is not so; it is really a very simple theory. Fortunately, Dr. Ricketts, of Chicago, has written a book in which immunity is very simply described. This book is entitled "Infection, Immunity and Serum Therapy," and it is an excellent exposition of all the modern doctrines on these subjects. I recommend it highly, especially to the general practitioner who wishes to read a clear and succinct account of the newer work.

What I wish to speak about mainly is the subject of the therapeutic measures which we employ in the treatment of chronic infections, and I desire to say a word or two about the principles underlying these therapeutic measures. Since the time of Hippocrates physicians have been trying to help Nature in the cure of the infectious processes, and gradually a whole series of different methods of helping Nature have been worked out. One of the principal efforts that has long been made has been that directed toward *keeping up the general strength of the body*; general reconstructive measures have always been much relied upon for

fortifying the natural mechanisms of defense. When patients are kept in the fresh air, are made to sleep out of doors, to eat as much good food as they can digest and are relieved from physical and mental strain, the mechanisms of defense are better maintained than when the sick do not have these advantages.

Much was hoped from methods of chemical *disinfection* when they were introduced. It seemed reasonable at first to attempt to kill invading micro-organisms directly by bringing into contact with them disinfecting agents which would kill them. That method, though it has its uses, has been very much abused; surgeons, especially, use chemical disinfectants less now than formerly. It was soon found that chemical disinfectants which kill the bacteria also injure the body cells; it has been shown that even very minute amounts of chemical disinfectants will render inefficacious certain of the substances in the blood serum which Nature uses as weapons in her fight with bacteria; for instance, it is asserted that lysol in great dilution mixed with blood serum destroys those sensitizing substances which prepare the bacteria for phagocytosis.

A very important method of fighting infectious processes is the surgical procedure of *removing the focus of infection*. The surgeons have undoubtedly done a great deal in helping us to fight acute and chronic infection by searching for the primary focus and excising it. The surgical treatment of appendicitis is an instance in point of triumphal achievement. There is, however, force to the objection that an attack on the primary focus by surgical means is, in some cases, dangerous. Surgeons, for instance, do not recommend operation on tuberculous joints as often as formerly, for efforts at excision have in more than one instance led to the dissemination of tubercle bacilli, through the body with the production of an acute miliary tuberculosis. Again, if a local focus be much stirred up by manipulative measures, the specific immunizing powers of the body may be, temporarily, greatly lowered. For example, Wright has shown that simple massage of the tuberculous joint leads, as a result he believes of disintegration of tubercle bacilli and diffusion of the endotoxines of tubercle bacilli into the system, to a state in which the opsonins are for a time markedly diminished in the blood. Indeed, he goes so far as to assume that simple percussion of the chest of a tubercular patient may lead to such an inoculation of the body with tubercle-poison that the specific opsonic bodies are reduced in amount for quite a period of time.

In all attempts, therefore, to treat local foci of infection by surgical methods the dangers should be borne in mind.

Another method of fighting local infections, especially chronic infections, is by *increasing the flow of blood and lymph through the part*; the application of heat to a part, for instance, causes an active hyperæmia and increases the amount of blood which flows through the part. The principles underlying such methods are understood better now than formerly. By increasing the amount of blood and lymph in a part, we bring into the part increased amounts of the antitoxic and antibacterial substances, which the body uses in fighting infection; we increase the number of phagocytes in the part, and with the plasma come those sensitizing substances, the opsonins, which make the bacteria ready for ingestion by the phagocytes.

*Passive hyperæmia*, now so much employed, has a like rationale. Bier obstructs the venous outflow from the part; if he wants to treat a chronic infection of a wrist joint, for instance, he will compress the veins in the arm, so that though the arterial blood can flow into the hand, the venous outflow is hindered; cyanosis develops with a great increase of blood in the part; the wrist becomes surrounded by engorged venous vessels, and when the pressure has reached a certain height in the veins, there is effusion into the tissues; all the parts are bathed with extra lymph, lymph which carries in it quantities of, say, bacteriolysins on the one hand, and opsonins on the other; some bacteria are killed and dissolved; others are sensitized for phagocytic engulfment.

In order to enhance the efficacy of Bier's method, the modification of Klapp has been introduced; an incision is made in the affected part, and passive hyperæmia then produced. Now the arterial blood flows in, venous engorgement leads to increased lymph formation, but as the lymph can find an exit through the incision, the infected part is continuously exposed to a flow of fresh serum, with ever-new supplies of protective substances. The advantage of this method is lauded by those who have tried it.

*Specific serum therapy* has been tried in acute and chronic infections, both antitoxic and antibacterial serums. There are only two or three antitoxic serums which are of value, those for diphtheria, tetanus, and perhaps for snake poisoning. The other serums on the market have no antitoxic value, or, if any, it is so slight that it need scarcely be considered. Antityphoid, anti-

streptococcic and antipneumonic serum are not antitoxic sera, but rather antibacterial.

The streptococcus, staphylococcus, gonococcus, typhoid bacillus and cholera vibrio do not produce true "toxines" in the bacteriological sense in great quantities. The symptoms of typhoid and cholera are due rather to the substances set free when a part of the bacteria are killed, and the dead bodies of the bacteria are dissolved up, setting free so-called "endotoxines"; the human body does not, Pfeiffer asserts, build an antidote to these endotoxines. There are, he thinks, no antiendotoxines comparable to the antitoxine for diphtheria-toxine.

It might be thought possible to make a protective serum so rich in opsonins that it would be valuable for passive immunization. If we inoculate a horse with staphylococci we may increase his opsonins somewhat, and then by transferring the horse's serum to a human being suffering from staphylococcus infection we might hope that the opsonins of the horse's serum would help to combat the staphylococcus in the human organism, by enabling the human organism's phagocytes to destroy the staphylococci more quickly. But it seems impossible to concentrate opsonins in a serum to the extent necessary to make such a treatment efficacious. It is possible that there are certain other substances in the antibacterial sera which help in the production of immunity, about which we as yet know nothing. In some cases favorable clinical results have apparently been obtained by their use; in other cases no good results are obtained. Antibacterial sera are, as yet, decidedly disappointing.

Another method of fighting chronic infection, that recently urged by Wright, is by *inoculation* with bacteria themselves. The symptoms in tuberculosis are supposed to be due largely to the endotoxine set free from tubercle bacilli disintegrated in the body. The question arises, what possible benefit could accrue to a tuberculous patient by injecting more dead tubercle bacilli into his body? Therapeutic inoculation sounds at first absurd, but modern study indicates that much may be hoped from it. In cases of tuberculous infection of the glands in the neck or of tuberculous joints, the opsonic power of the blood for the tubercle bacilli may be lowered. In inoculation, we have a method, which, if cautiously used, permits us to increase the opsonic power. Thanks to the ingenuity of Wright, we are now able easily to measure, by a clinical method, the opsonin index. In tuberculous infection the op-



sonic index may be low or very high or it may be variable. If the opsonic index is low, phagocytes cannot destroy tubercle bacilli; the tubercle bacilli are not properly sensitized, and cannot be eaten by the phagocytes. When the opsonic index is high, the phagocytes have their best opportunity; in cases of tuberculosis in which the opsonic index is high, the body is doing well in the battle, and inoculation is unnecessary. When the opsonic index is low, you can increase the opsonic power, the amount of opsonins in the blood, by injecting very minute quantities of dead tubercle bacilli. Apparently, in certain chronic tuberculous infections the body is not destroying enough tubercle bacilli to cause the biological reactions which give rise to the opsonins. If you can artificially put in dead tubercle bacilli, you can increase the opsonins, so that the body will fight the living tubercle bacilli much better; that is the principle underlying the treatment of tuberculosis by tuberculin, a treatment which is still being used in Saranac Lake by Trudeau and apparently with success. According to Wright, using minute quantities of tuberculin, and measuring the opsonins as you work, you can increase the opsonic power of the blood and help the patient to throw off his tuberculosis. He has found the treatment by bacillary vaccine helpful in the cure of tuberculous glands and lupus, and in the cure of tuberculous sinuses after operation.

The determination of the opsonic index sounds like a difficult procedure, but it can easily be done by men with laboratory experience. It seems possible that just as we have now anesthetists in our hospitals, so in the future we shall have men there whose especial duty it will be to determine opsonic indices and to give bacterial inoculations. To measure the opsonic power the laboratory worker simply draws a little blood from the finger, dilutes it with sodium citrate and centrifugalizes, so that the white corpuscles are obtained in a layer; some white corpuscles are mixed with a suspension of tubercle bacilli and the patient's serum; the mixture is placed in the thermostat for half an hour, after which a smear preparation is stained and the number of bacilli ingested by fifty leucocytes counted; then dividing by fifty the average number of bacteria ingested per leucocyte is obtained. Let us say that the serum from a patient suffering from a tuberculous process yields a preparation in which the average number of bacilli engulfed is only ten per leucocyte, whereas the same white corpus-

cles, mixed with the same bacterial suspension, but with normal blood serum, yield a preparation in which the average number of bacilli ingested per phagocyte is twenty. The opsonic index in the patient then would be half normal; if we arbitrarily call the normal 1, the opsonic index of the patient would be 0.5. It turns out that the opsonic index in healthy people rarely varies more than 0.1, while if you examine a patient who has tuberculosis you may find that the opsonic index is very much below 1.0, say at 0.8, 0.6 or 0.4.

This work of Wright's is being confirmed. Hektoen, of Chicago, with a group of associates, has done much work on the subject. Simon, of Baltimore, and Potter, of New York, have also made a careful study of the opsonic index. In my laboratory Dr. Cole and others are now busily engaged in testing and practically applying the method. It seems probable that though the methods may yet be made more precise, we already have a practically valuable way of measuring the opsonic power of the blood; in working with therapeutic inoculation of bacteria it is desirable therefore that this practice should be controlled by regular determinations of opsonic indices.

Wright asserts that in inoperable cases of tuberculous cystitis he has wrought cures successfully by increasing the opsonic power by inoculation. Another chronic infection which he declares is amenable to treatment by inoculation is chronic furunculosis. Some cases, as everyone knows, are very resistant to ordinary treatment; Wright has shown that they can be cured by giving injections of dead staphylococci, starting with an injection, say, of 200,000,000 dead staphylococci and increasing up to 300,000,000 or 400,000,000 per dose. By this means the opsonic power against dead staphylococci can be distinctly increased. Care must be taken not to give too large doses, for the so-called "cumulative negative phase" has to be avoided.

I desire to speak especially before closing of certain *chronic metastatic infections* which tend to be recurrent, polyarthritides on the one hand, and endocarditis on the other. A great deal of new light has been shed upon the infectious forms of arthritis in the recent past, light which has come largely through the co-operation of physicians, bacteriologists, pathologists and orthopædic surgeons. The younger Boston school of orthopædist, with Goldthwait at its head, have helped us especially. It seems tolerably clear now

that the majority of the so-called acute and sub-acute rheumatisms, many of the so-called chronic rheumatisms, and at least a part of the cases of arthritis deformans are instances of infectious polyarthritis. As a result of a primary focus of infection situated somewhere in the body, a few bacteria get over into the blood and are carried to the joints, where they set up the arthritis. If the primary focus of infection is cured and does not recur, there may be only one acute attack of arthritis, but where the primary focus persists and undergoes recurrent exacerbations the joints may be repeatedly metastatically infected.

. One very practical point in this connection has resulted, and that is this: *we have in such cases to seek especially for the primary focus of infection, and having found it, we must get rid of it in order to prevent further metastatic infection.* It would appear that in a considerable percentage of the cases the primary focus of infection is in the throat, particularly in the palatine tonsils. Even where the tonsils are atrophic and superficial examination reveals no obvious lesion, it is sometimes found that if the tonsils are extirpated the patients get well, and examination of the extirpated tonsils reveals local infection. The series of cases recently studied by Goldthwait, and operated upon by Goodale, is very convincing.

If the palatine tonsils are not the seat of the primary focus of infection, the pharyngeal tonsil should be carefully examined, as should also the gums, since in certain instances a pyorrhea alveolaris (Rigg's disease) appears to be responsible for the metastatic infection. We have long had a paradigm of these metastatic infections before us in the form of gonorrheal arthritis, the primary focus of infection being the urethra or prostate, but we have been slow to recognize that other forms of acute polyarthritis are also metastatic in origin and dependent upon the existence of some primary infected focus. In women the uterine canal or the Fallopian tubes may be the seat of the local infection which is responsible. Occasionally we have to suspect an otitis media or infection of one of the para-nasal sinuses as the initial disease. Now and then bronchial or pulmonary infection or infection of the mucous membrane of the intestine may be the primary process. A large part of our success in treatment of these chronic forms of arthritis will be dependent upon our ferreting out the primary focus of infection and getting rid of it.

Since my attention has been called to the importance of this conception of a primary focus of infection in the etiology of polyarthritis, I have been turning over in my mind, also, the many cases of endocarditis which we see in young people, cases in which the endocardium may be repeatedly attacked, sometimes with complicating pericarditis. It seems to me probable that we have to regard such cases as similar instances of metastatic infection from some primary focus of infection. We all know how common it is to have an endocarditis associated with a polyarthritis, and how frequent it is to meet with an endocarditis as a complication of various local pyogenic infections. In a great many instances the endocarditis is secondary to a primary tonsillitis and the recurrences of the endocarditis are associated with recrudescences in the throat. I believe that we shall be able to do a great deal to prevent the progress of endocarditis in young people. Once a joint has become infected or the endocardium attacked, we shall make it our duty to search for the primary focus and treat that infection, and in many instances, especially where the tonsil is involved, we may without great danger excise the primarily infected organ and thus prevent a recurrence of the attacks. In very young children one might hesitate to remove the tonsils for fear of some protective function or of some function or internal secretion necessary to the welfare of the child. In later life, after the tonsils have begun to become atrophic, such dangers need scarcely be considered. In view of the fact that the palatine tonsils are only a part of Waldeyer's ring, and inasmuch as the lingual tonsils are never removed by operative procedure, it would seem likely that the tonsillar function of internal secretion would be sufficiently carried on even in young children after the palatine tonsils have been excised. There is now a large bibliography on the subject of infections through the tonsil. It has been very well reviewed in the recent address given by Dr. Isaac Adler, of New York.\* Physicians have for a long time been familiar with the close relation which exists between tonsillitis, rheumatism and endocarditis, but action has scarcely kept pace with knowledge. The time has come when an acute tonsillitis should always be regarded as a very serious infection, owing to the possibilities of metastatic infection therefrom. No case of acute tonsillitis should be considered as trivial.

\*Adler, I. "Remarks on some General Infections Through the Tonsil." *New York Medical Journal*, March 31, 1905.



The patient should be placed in bed at once and active measures taken to combat the local infection. Once metastatic infection has occurred, the quicker we make further metastatic infection from the same source impossible, I think, the better. I believe that from now on physicians are going to be able to prevent a great deal of polyarthritis, endocarditis, and perhaps acute and chronic nephritis, by recognizing this conception and acting promptly upon their convictions. It is the general practitioner who meets with these primary infections in the tonsils and elsewhere, and it is he to whom the great majority of patients must look for the recognition of the danger and judicious prophylactic advice.

### A MORE CAREFUL DIAGNOSIS IN HEAD INJURIES.

BY C. F. BARBER,  
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As in previous papers I again advocate a closer study of head injuries and their results. More especially in this brief paper would I call the attention of the surgeon to the seeming trivial injuries to the head—trivial at the time of the accident but later becoming serious in the extreme.

There are without a doubt many cases of death each year of hemorrhage upon or within the brain, the result of fracture of the skull, which fractures have passed unobserved at the time of the accident. In a large proportion of these cases the individual has at the time of receiving the injury been sufficiently under the influence of liquor to mislead even the best of observers. Further, in a goodly number of cases of this class the general symptoms are so profound that an observer unless especially trained and of great experience will be unable to properly judge the exact nature of the injury.

Most cases however if carefully watched and sufficient time is spent in separating the normal from the abnormal, will have one or two factors sufficiently prominent to guide one in locating the centre of greatest damage.

An unusual movement of the extremities, restrained or convulsive, is of importance in many cases. Oftentimes a simple lineal incision will confirm or disabuse your mind of a suspected irregularity of the skull surface.

A case will illustrate the purpose of this brief paper and so I will take one of recent occurrence.

W. C. H., age 37 years. A gentleman of edu-

cation, in full health. While attempting to alight from a trolley car, fell, in just what manner is uncertain as statements differ by those who were with him.

He arose quickly and walked several blocks to the home of the gentleman who accompanied him; felt somewhat disturbed after reaching home and went to bed. Asked that a physician might be called. Gradually sank into a semi-comatose condition. Would answer questions if sharply spoken to and complained of severe pain in occipital region. A few hours later sank into coma and was in that state when removed to Kings County Hospital.

Upon admission it was noted that his breathing was stertorous; pupils equal, reacting to light. Right eye slightly deflected to right, mouth possibly a little drawn to right. A slow left-sided paralysis came on. Pulse full and slow. Tongue to left. Respirations deep and slow.

Dr. Applegate who saw the patient directly after the fall could find no mark upon him to indicate any point of injury. No abrasion or contused area was found at the time he was operated upon. His increasing stupor caused the doctor to suggest his removal to the hospital. At this time it was not quite clear as to whether he had suffered an apoplexy at the time of his fall or whether the fall was due to a cerebral hemorrhage. There being a question of doubt Dr. Wm. Browning was asked to see the patient. At his suggestion the patient was transferred to the surgical division and from the symptoms then present it was deemed wise to explore if nothing more; to ascertain the possibility of hemorrhage and, if present, whether intra or extra dural.

From the symptoms present it seemed most probable that the centre governing the left arm was as near the point involved as any. It was therefore decided to open at about this point—a trifle in front of same. A rule advised by Dr. Browning and one which I have never regretted abiding by, in cases such as this, is to open the skull and then inspect through a small bone opening to see if hemorrhage is present and its location. This small opening might be called the control-point, as one is able by enlarging it to relieve the pressure to any extent he may see fit. In this case I incised the scalp at the point designated but, before applying the small drill, examined the skull with my index finger. Much to my surprise I was able to report a positive fracture.

Satisfied on this point, a generous horsehoe

shaped incision was made. This exposed the fracture but did not reach its distal part. Following the line of fracture it was found to extend from a point about one inch above the external auditory meatus and one-half inch posterior to the external angular process of the frontal bone, posteriorly to about the occipital protuberance. A fair sized trephine opening was made at the anterior portion of the fracture and a rongeur quickly followed the fracture to its limits. An extradural clot of large size was found and curetted out. The fresh hemorrhage was quite free; several branches of the middle meningeal had suffered by the accident. The hemorrhage had been so extensive that a portion of the cerebral hemisphere was indented, of the size of an English walnut, the largest indenture I had ever seen.

We were obliged to sew in quite a bit of gauze to control the bleeding. It is my custom to pack fairly snug when hemorrhage is uncontrollable, and then stitch the scalp over the gauze, thus making a firm but elastic pressure which I have always found has controlled excessive bleeding. I allow none of the gauze to be exposed. Three or four days after I reopen sufficient of the wound, usually without anesthesia, to remove or renew the packing. If able to remove the packing I close permanently.

In this particular case we had a return of consciousness the next morning and a clear mental condition, which continued. The temperature and pulse suddenly soared—the one to 106, the other to 140—and this accompanied with a miserable hiccough. After the packing was permanently removed the temperature and pulse gradually subsided but the hiccough remained for several days and persisted in spite of every drug and device, so that we feared we might still lose our patient. He suffered extremely from this serious condition but it gradually subsided. The high temperature and pulse I am inclined to believe was due to the force packing. The other troublesome symptom is possibly accounted for by the necessary irritation caused in curetting the clot from its position.

However, he so rapidly improved that he was able to leave the hospital two weeks after he had been operated upon and from last reports he was out of doors enjoying the luxuries of country life.

In this case the symptoms upon admission were so profound that any attempt at localization was out of the question; thirty-six hours cleared

the condition sufficient to permit of a provisional diagnosis.

This uncertain condition prevails in many cases, for the extreme shock in injuries to the head where no marks are apparent to guide is sufficient to mask the important diagnostic symptoms. But by keen watching, the symptoms of shock will be found to gradually disappear and the permanent symptoms be discernible. It may take twenty-four hours for this transformation to take place and sometimes several days. As soon as symptoms are found which shall guide you, open at once, for permanent damage soon begins in a brain subject to continued pressure.

We are sometimes entirely at sea even when the skull is opened, absolutely nothing showing for the symptoms present. The best explanation is an injury contre-coup. This I have been able to verify on several occasions.

As to returning consciousness, severe shock will oftentimes delay the return of the senses for days; the functions are reestablished more slowly in my experience where the shock has been great than when hemorrhage has occurred. This is probably due to the great cell disturbance; whereas with hemorrhage it is the compression which, being relieved, quickly restores the functions of the higher centres.

#### PRINCIPLES OF MECHANICAL SUPPORT.

BY C. D. NAPIER, M.D.

By mechanical support is meant artificial means in aiding nature to overcome a disease, injury or defect. This support is obtained by steel, plaster of paris, celluloid, leather, or wooden splints. It is indicated in diseases of the bones or joints, or fractures or dislocations, and in certain injuries, defects and malpositions. When the surgeon is called upon to assist healing by placing the part at rest or protecting it, he should understand thoroughly the general principles of mechanical support as well as those specially pertaining to the case in hand.

One of the cardinal principles of mechanical support is that it is an aid only and not the whole treatment. This is the most important principle, and yet the one least appreciated by many. It is flagrantly disregarded or not understood by the instrument and shoe makers who treat flattened arches of the feet solely with the insole, and disregarded as well by the physicians who think they have done their duty by such a patient when they send him to a brace maker for a plate. The causes which have produced this condition—im-



proper shoes, faulty position of the foot in standing and walking—are not explained to the patient and corrected; and instruction in exercising and toning up the weakened and over-stretched muscles is neglected—all of which are just as important, if not more so, than the supports. And so also in dealing with the so-called "bete noir" of orthopedics—lateral curvature of the spine—the brace or plaster corset alone is not scientific, nor is the exercise treatment alone sufficient in all cases—as practised by Bernard Roth, of London.

Heather Bigg, of England, has recently written on the use of the brace in lateral curvature, claiming that the exercise treatment and plaster of paris treatment are of no avail. He has probably either had no experience with those methods, or if he has tried them, has not properly adapted them to the individual case. The love of the brace has blinded him to the good in the others. The two should be intelligently combined where indicated. Were these patients brought under proper care early, this condition would not be considered so much of a "bete noir." Fractures are not neglected and therefore not dreaded. Even phthisis in its early stages is now looked upon with less fear. And the weak arch if seen in its incipency and cared for with proper regard for its normal functions and position, may never require mechanical support; and we might be spared the difficult management of the neglected or antirheumatic treated, badly deformed flat foot. In those unfortunate cases of infantile paralysis, so much may be accomplished by muscle development, and later operative interference to correct deformity or by tendon transplantation or arthrodesis to give more stability and strength to a joint. Yet the brace is invaluable to aid the other methods.

It must be remembered that the artificial support, when applied, largely takes the place of nature's support—the muscles; and when muscles are not used, they become weakened. Where complete rest and fixation are not required for the cure of the disease or in the convalescent stage of Pott's disease or other joint diseases when constant fixation is no longer necessary, the muscles must be exercised in order that they may regain their tone and functioning power. That brace weakness always follows brace use is another principle which must be reckoned with.

In adjusting the steel, the pressure must be real where needed, but unnecessary pressure avoided, and good support obtained to the weakened part. The ordinary shoemaker's sole plate

gives upward support only and does not take into account the sliding inward of the astragalus, and this may take place and marked valgus result while the foot is resting on this inefficient support. The commonly used short hip brace does not fix the diseased hip, if fixation is sought for. In the care of the fracture, the general rule is to fix the joint above and below with the plaster or splint, so in fixing a joint, the apparatus should extend well above and below the joint. A plaster dressing for fixation of the knee, when carried only to the middle of the thigh, as is so often the case, allows at least 10 per cent. of motion in the joint. Protection should be made in all directions. The common method applied with fracture of the neck or upper third of the femur—traction with a long side splint—does not take into account antero posterior motion. The daily application of the bed pan, usually by a semi-trained nurse, produces motion at the point which should be completely fixed in order to obtain union. Posterior support over the buttock is most important, either with the splint, or better, plaster of paris.

Prevention or correction of deformity is another important point to study and carefully work out in using any mechanical appliance. Whether treating Pott's disease, joint disease, lateral curvature, weak foot, paralysis, or fractures, it is known that deformity, that is, bad position, is almost sure to result if nature is not assisted in the right way. The anatomical condition and physiological functions of the part must be understood to appreciate what deformity it tends to, and then, by proper application of force in adjusting the appliance, that tendency must be counteracted. This problem may be a simple one or complex, owing to divergent action of muscles. The principles, however, are simple. In paralysis it is certain that, given a loss of power in one group of muscles, the opposing group tend to contraction and shortening, or if the affected group be merely weakened, the result is the same, but comes more slowly. It is an important point to recognize that muscles partly paralyzed, if allowed to be on the stretch, recover with difficulty, but if well supported and shortened up, regain their tone more quickly and more completely. An early case of infantile paralysis may often be much benefited by immediate application of steel or plaster of paris support. How many instrument makers can appreciate the value of these seemingly small points, or, if they do, can understandingly apply them to an individual

case? Yet these mechanics are constantly treating such cases with their braces. The surgeon should study the case and be in control, the maker of the brace adjusting it under his direction.

The instrument maker should be what he is—a mechanic, not a surgeon. However, they do not hesitate to handle even a patient with Pott's disease. The writer has seen such a case which had been treated—or, more correctly, maltreated—by one of the best known and highest priced firms in New York, where, with the disease in the upper dorsal spine, a brace had been applied which held only the spine below, barely reaching up to the affected point. The parents, supposing the child was receiving proper care, allowed the case to go on, until extreme deformity resulted.

In diseased joints, or joints where the motion is restricted from any cause, the tendency is toward flexion, in the hip, flexion and adduction. Consequently the fixation or supporting splint should aim to preserve extension. Exception should be made with the elbow, where the flexed position is a more useful one in case of resulting ankylosis. When plaster of paris is applied to the ankle joint, whether for disease or fracture, the right angle position should be maintained that the tendo Achillis may not be too shortened for easy walking, with also some inversion to prevent a subsequent valgus with resulting flat foot.

Nature must be made to aid us. The severely paralyzed child cannot walk, consequently the muscles which have some power are not stimulated by use to recover that power, and they become still more atrophied. Such a child well braced is put on its feet, is made extremely happy thereby, and muscular action is improved. The use of the crutch to take the place of a partly paralyzed leg is bad treatment. The leg which might become very useful if mechanically supported goes on to greater atrophy and greater shortening till it becomes a mere appendage.

The influence of growth on deformity is considerable. This is justly emphasized in Dr. Judson's excellent book on that subject. The limb should be carefully held in a normal position, that the bones may develop normally and not be subjected to abnormal pressure.

While treating one part, thought must be taken of the rest of the body. If one leg be shorter than the other the pelvis will be tilted and the spine thus curved. If this vicious position be maintained for some length of time, lateral curvature will likely result. In the application of

the brace to hip disease, care must be observed that it does not become too short. In infantile paralysis one limb is usually shorter than the other. This should be equalized by building up the shoe. When the plaster jacket is applied not sufficiently low to include the whole abdomen, or the canvas apron of a Taylor spinal brace is too short, the abdominal contents will make too much pressure at the rings, with often a resulting hernia, which is favored also by the weakness of the abdominal muscles.

The material to be used in the appliance is often decided in favor of that with which the surgeon has had most experience. And so we will see Pott's disease, for example, treated largely by some with plaster of paris, and by others with a steel brace. For thorough fixation the plaster is the more satisfactory; therefore, as a general rule, when there is active inflammation it relieves the symptoms quicker and the diseased process is better controlled than with any form of brace; but, as in everything else, the individual case must be studied. The assistance to be expected from the parent must also be considered. Where nothing but ignorance and carelessness or too much sympathy may be expected, one feels safer to lock up the joint or spine in plaster, rather than a brace which is easily removed.

To secure the best results a combination of different kinds of support is often essential. Hip disease may be well treated with fixation by means of a plaster spica in addition to a short hip brace, which acts as a crutch to take the weight off the joint. A paralyzed foot may be partially supported by a brace and partly by building up the shoe on the inner or outer side to prevent either a valgus or a varus. The knock-knee brace may be aided by raising the inner side of the shoe to take some of the strain from the ligaments on the inner side of the knee.

The older child or adult who is condemned to the use of the brace thinks much of its unsightliness. It should therefore be made as neat as possible, the steels approximating the limb as closely as allowable, and unnecessary steel avoided. Often an extra stocking with the foot cut off may be drawn over it, making it much less conspicuous. The patient will then not be so tempted to discard an important support. A child can be taught to limp much less by securing a more nearly normal rhythm of step—a limp being merely a break in the normal rhythm.



These are merely suggestions relative to the general principles of support. They must, of course, be applied rationally to the individual case. And it is a sensible proposition that the surgeon is the one to apply them, and that this duty should not be delegated to the maker of the steel, who has not the knowledge of the anatomy and functions of the various parts of the body to properly apply the principles.

### THE TREATMENT OF CHRONIC VALVULAR DISEASE IN CHILDREN.\*

BY EDWARD E. CORNWALL, M.D.,

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There is no specific or well defined line of treatment for chronic valvular disease in children. Only general principles governing the treatment in this condition can be laid down, the successful application of which to particular cases must depend on the skill and experience of the physician.

This disease, as it occurs in children and adults, presents certain points of difference. In children, when not a congenital condition, it occurs almost always as a sequel of acute endocarditis caused by acute rheumatism or one of the infectious diseases; while in adults, as a result of changes in the valvular tissues produced by atheroma, by gout, syphilis, lead or alcohol, or by long continued muscular overexertion, a considerable proportion of cases appear as chronic from the start. Another fact which differentiates this condition in children from the same condition in adults is that the growth and development, which is continually taking place in children, puts a burden on the crippled heart of the child from which the heart of the adult is free. These points of difference have a bearing on the treatment.

In the treatment of this disease it is of prime importance to individualize each case. In the treatment of all diseases correct practice demands that each case be individualized, but there are some diseases whose course is sufficiently regular to make it possible to describe a routine treatment for the average typical case. This is not so, however, in chronic valvular disease. Here we find no typical average case. The patient may appear to be in perfect health, or he may present a complication of serious disorders, in the treat-

ment of which the utmost skill in the adjustment of remedies is required. In individualizing a case of chronic valvular disease in a child, besides making as accurate a diagnosis as possible of the particular valve lesion, and estimating carefully the condition of the heart muscle as regards nutrition and functional power, we must also take into account the idiosyncrasies of the patient and his physical and mental environment.

Success in the treatment of this disease depends largely on the general management. Here we often encounter difficulty. The patient is a child and irresponsible, so his co-operation cannot be secured. He cannot be trusted to do what he is told, but must be compelled to do it. It is the parents on whom we must depend to enforce our directions for general management. It is easy to get the effective co-operation of the parents when the child is suffering, but when he is free from troublesome symptoms and chafes at the restrictions imposed it is not always easy. It is a good plan early in the case to explain frankly and fully to the parents the nature of the disease, what prospects there are of improvement under good management, and what dangers threaten the patient if the prescribed directions for general management are not rigidly carried out. It may be necessary to refer to this subject many times, to harp on the dangers, and to emphasize the responsibility which rests on those who have immediate charge of the patient. Even then the parents frequently fail to enforce prescribed restrictions, being influenced by the pleadings of the child. The prognosis in this disease is worse than it would otherwise be, because of the difficulty so often experienced of securing proper management during and after convalescence. In every case the physician should insist on having the child brought to him for observation at least four times a year, no matter how well he may be.

The most important part of the management of these cases often consists in keeping the patient in bed for a long time. This is a remedial measure of the greatest value. In every case where compensation has been lost the patient should be kept in bed until long after compensation has been reestablished. This is treatment enough in mild cases, and in severe ones no treatment is of avail without it. How long a particular patient should be kept in bed is not always easy to decide. It is better to keep a child in bed too long than to let him get up too soon. Several months in bed does a child no harm, and

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is not too great a price to pay for a reasonable security against relapse. It is somewhat different with adults, whose retention in bed requires to be regulated more closely. A good rule is to keep a child who has suffered from ruptured compensation, or who recently had acute endocarditis or an acute exacerbation of chronic endocarditis, in bed for at least a month after all symptoms that in any way show disturbance of the circulatory balance have entirely disappeared. This is the minimum. More often it is advisable to keep him there longer. In view of the difficulty of controlling the parents during the period of convalescence, it is best to avoid setting a formal date for the child to get up, because if that is done the parents are very apt to anticipate it; and if circumstances should arise which compel us to postpone it, the difficulty of keeping the child in bed longer will be greatly increased.

After compensation has been established and the child is up and around, the amount and character of the exercise he takes must be regulated. While we should not risk a relapse by allowing too much freedom, on the other hand we should not restrict exercise so far as to cause the muscular system, including the heart muscle, to lose tone. In general, very little exercise should be allowed for a considerable time, perhaps a year, after restoration of ruptured compensation or recovery from acute endocarditis. Walking on the level is practically the limit in such circumstances. But after compensation has existed for a considerable time, and the heart muscle shows a fair amount of reserve power, greater latitude may be permitted. In favorable cases the patient may indulge in minor gymnastics, climbing hills, even bicycling on the level. But running, swimming and all athletic games in which there is prolonged muscular exertion must be absolutely prohibited.

Regulation of nervous activity in these cases is as necessary as regulation of muscular activity. The patient should be protected as much as possible from sources of nervous excitement. In this connection the question of school attendance comes up. I believe that it is safest to keep a child from school for at least a year after all signs of cardiac insufficiency have disappeared. When he does go he should be carefully watched for signs of heart strain, such as impaired nutrition or anemia, or more pronounced signs of imperfect compensation, such as shortness of breath on slight exertion and a dry cough. Particular vigilance is necessary at the time of puberty,

when the burden of growth and development is heaviest, and when extra strain in school or at play easily destroys compensation.

In this disease the ultimate dependence is on the nutrition of the heart muscle, consequently the value of good hygiene and proper diet is obvious. The patient's room should be well ventilated, and when strong enough he should be in the open air as much as possible. If general nutrition lags, it may be advisable to try a change of scene and climate. The diet should be regulated with reference to the needs of the patient's system, the limitations of his digestive power, and the indications given by coexisting morbid conditions. Indigestion is common in uncompensated valvular disease, and greatly aggravates the bad heart action.

The use of heart stimulant drugs is often a vital part of the treatment of chronic valvular disease in children, but in order to get the best results they should be administered with care and judgment. Some of them are so very effective that it is easy to fall into routinism in their use, giving them in every case of valvular disease in which compensation is lost or weakened, and in more or less the same doses, and rapidly increasing the doses if the desired effect is not speedily obtained. Such injudicious drugging is frequently responsible for failure to produce good results. In giving these drugs to children the following consideration should be borne in mind:

First, they should not be given at all if the recumbent position alone is sufficient to restore the circulatory balance. It is only when compensation is so far lost that the recumbent posture alone will not restore it that they are indicated. If continued after compensation has been gained they may do harm.

Second, they should not be given to restore compensation without at the same time keeping the child absolutely in bed. Although it is true that adults, under certain circumstances, may be given heart stimulants to bring their circulation up to the level while they are allowed to be on their feet, such treatment is never justifiable in the case of children.

Third, they should be given in doses suited as nearly as possible to the capacity of the heart muscle. Because a certain dose of a heart stimulant fails to bring about the desired effect promptly, it does not follow that a larger dose will produce it. Often it happens that a larger dose will produce an injurious instead of a beneficial effect. If the heart is greatly dilated



and its muscle correspondingly feeble, large doses of stimulants exhaust it. In bad cases it sometimes pays to try the effect of diminishing the doses of heart stimulants instead of increasing them. I have seen such action followed by good results. In order to get the greatest benefit from the use of heart stimulants when the heart is much dilated, small doses should be given at first, such as the weakened muscle is able to respond to. Later, when the muscle has gained in strength, larger and more effective doses may be given. In bad cases we should be satisfied at first if we can keep the patient's condition from getting worse. If it does not get worse it is probably getting better. In advanced cases of dilatation with much dropsy, visceral congestion, etc., improvement may be very slow. But if we have patience, and do not try to hurry too fast the development of the compensatory hypertrophy, we sometimes get surprising recoveries. If on the other hand we get impatient, and pour in heart stimulants in a frenzied attempt to make the heart do what is beyond its power, we may hasten the child's death.

The particular heart stimulants which should be used in a given case must be determined by the physician according to his experience, but there are a few guiding indications, such as the degree of heart failure, the extent of dilatation, and the character of the lesion. When there is considerable dilatation digitalis is the classical remedy, but the superiority of this drug over all others in the treatment of dilatation is less striking in the case of children than in the case of adults. I have found strophanthus as effective or more so in a large proportion of cases. In cases of severity I usually give both drugs alternately, and have the mother or nurse report to me on the condition of the child while taking each. The report more often than not has been that the patient seemed better while taking the strophanthus. Even in mitral incompetency, where digitalis is generally supposed to be pre-eminently indicated, I have seen strophanthus produce equally good results. In bad cases of dilatation from any cause strophanthus sometimes acts better than digitalis. In the treatment of the various stenoses, I think there can be little question of its superiority over digitalis. Possibly the explanation why the action of strophanthus is sometimes better than that of digitalis, lies in the fact that it exhausts the heart muscle less than does the latter drug. But strophanthus with all its good qualities, can not entirely re-

place digitalis as an agent for the steady training of the heart muscle. In the use of these drugs much depends on the method of administration as well as the reliability of the preparations.

Besides digitalis and strophanthus there is only one other heart stimulant which we are likely to need in the treatment of most cases of lost compensation. This is strychnine. Strychnine can be used in connection with the other two drugs oftentimes with great benefit, and it can be continued after they have been stopped, and even after compensation has been restored, because it does not have the bad effect on the compensated heart that they are apt to have. It is a valuable adjuvant heart stimulant, but can not be relied on by itself to restore compensation.

Besides the three heart stimulants above mentioned, there are many others which are in good use, but with the exception of aromatic spirits of ammonia and morphine, they need not be mentioned here. The others are inferior, and the only excuse we could have for using them would be that we could not get the better ones. The desire to use something different would not be a sufficient excuse. Aromatic spirits of ammonia is valuable as an emergency stimulant, and morphine is sometimes a life saving drug. When the dyspnea and cough are extreme and the patient is utterly unable to sleep, morphine or codeine is imperatively called for. But it should be remembered that children usually make more fuss with a given amount of discomfort than adults.

Besides the main treatment of this disease, which is directed toward establishing compensatory hypertrophy of the heart muscle, we are often called on to treat numerous complications which result from passive congestion. These complications range all the way from slight impairment of nutrition and anemia to cirrhosis of the liver and kidneys. Catarrh of the gastrointestinal tract, bronchitis and pneumonia are common. Dropsy is often present, though it is perhaps relatively less prominent as a symptom of valvular disease in children than in adults. The treatment of these complications is necessarily palliative so long as the cardiac insufficiency remains.

In closing this brief discussion of the principles governing the treatment of chronic valvular disease in children, I have ventured to give a few sketch reports of cases which illustrate the particular application of some of these principles.

CASE I. Diagnosed as congenital pulmonary

stenosis. Girl three years old, giving no previous history of significance except that when she was two years old a doctor said she had a "weak heart." Two weeks before I saw her she began to suffer from cough and dyspnea. When she came under my observation there was extensive pulmonary congestion, rapid and irregular heart action, and a temperature of 101 degrees. Over the entire chest a loud systolic murmur could be heard, which was most marked in the second left intercostal space near the sternum, where also a thrill could be felt. The murmur was transmitted to the left and slightly upwards. The treatment of this case consisted of rest in bed for three months, the administration of tincture of strophanthus in drop doses every four hours for one month, and a little iron. Compensation was completely recovered.

CASE II. Diagnosed as mitral stenosis and incompetency due to acute rheumatism, with permanent relative tricuspid incompetency. Boy eight years old, with previous history of rheumatism and symptoms for two months past of ruptured compensation. When he first came under my care his lower extremities were greatly swollen. The area of his liver dulness extended two inches below the normal. His heart was enlarged both to the right and left. His pulse was small and feeble. There was a systolic murmur audible at the apex and all over the chest. At times a presystolic thrill could be made out at the apex. His urine was scanty, albuminous and bloody. There was distressing cough and dyspnea. Treatment consisted of rest in bed for five months, administration of four to ten drops of tincture of digitalis three times a day for four days, alternating with two to four drops of tincture of strophanthus every four hours for three days, and strychnine sulphate in doses of one hundred and eightieth to one hundred and twentieth of a grain three times a day continuously. Digitalis proved less effective in this case than strophanthus. Aromatic ammonia in five drop doses was occasionally given with benefit. During the worst period codeine in doses of one-sixteenth of a grain was of great assistance. There were times when the condition of the stomach required a diet of peptonized milk or of predigested foods. Iron was extensively given. Under this treatment apparently good compensation was secured which lasted six months. Then the child, whom it was impossible to keep under proper restraint, broke it down by playing too hard. In this relapse all the symptoms were

worse than before except the dropsy, which was less. The dyspnea was so great that the patient was unable to lie down for five months. The lower lobes of both lungs were partly consolidated. The area of liver dulness extended four inches below the ribs. When compensation was with great difficulty again restored, there was a permanently dilated heart and a permanent relative tricuspid insufficiency. The enlargement of the heart was so great that the precordium bulged. The area of cardiac dulness extended from the right nipple line to the left mid-axillary line, and as far up as the second rib. At the present time, three months after the second recovery, the patient is beginning to show signs of failing compensation, and I expect that he will soon start on a final downward course.

CASE III. Diagnosed as mitral incompetency following acute rheumatism, with relative tricuspid incompetency. Girl of six, supposed by her mother to have growing pains, shortly after became pale and languid, lost flesh, was short of breath, and had a troublesome cough. Examination showed a systolic murmur at the apex transmitted into the left axilla, with considerable enlargement of the heart. Rest in bed for five months, with administration of four to eight drops of tincture of digitalis three times a day for three or four days, alternating with tincture of strophanthus in doses of one to four drops every four hours for three or four days, with strychnine sulphate in doses of one hundred and eightieth of a grain three times a day, and a fair amount of iron from time to time, brought back good compensation. Six months later, despite the warning given to the mother, that she must keep the child constantly under her eye, the child was permitted to go with some other children on a long walk. This overexertion produced a rupture of compensation. This time it took eleven months in bed to restore compensation. A few months after the second restoration the child played too hard and a third relapse took place. The child improved for a time under treatment, but there was now a permanent relative tricuspid incompetency, and the improvement was transitory. Later she declined steadily, and died at the end of thirteen months.

CASE IV. Diagnosed as aortic incompetency. Boy of fifteen, with history of frequent attacks of shortness of breath on slight exertion, and cough, during the past five or six years. When first seen by me there was extensive congestion of the lungs, a Corrigan pulse, and rapid and



tumultuous heart action. The left ventricle was much enlarged, the apex beat being in the seventh interspace. There was a clear, blowing, diastolic murmur, audible with maximum intensity in the midsternal region and at the apex. Four drops of tincture of strophanthus were given every four hours, and a sixtieth of a grain of strychnine, and the parents were told to keep the boy absolutely in bed. This they failed to do for the first month, and during that time the patient failed to improve. A severe lecture was then administered to the parents, after which the order to keep the boy in bed was obeyed. At the end of four months in bed fair compensation was recovered. Now he is walking around, gaining flesh, suffering no inconvenience. His apex beat is in the sixth interspace, and he has a marked *cor bovinum*.

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#### SOME OBSERVATIONS ON PYREXIA AND SUBNORMAL TEMPERATURES IN INFANCY AND CHILDHOOD.\*

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Very slight causes will elevate or depress the temperature of the healthy child. Heat applied to the surface of the child may send the temperature up two to five degrees and, *per contra*, cold applied thus may reduce the temperature two to five degrees.

A baby's temperature is exceedingly unstable and it may be stated that the younger the child the more easily varied the temperature. The older the child the nearer it approaches to adult stability.

A baby's normal temperature varies from 98° to 99° F. There is apt to be an evening fall of a degree. For the first five months of life the temperature varies greatly from slight causes. After this, the older the child and the more stable the nervous system the less the variations from slight causes; but up to the sixteenth year there is more or less susceptibility to high elevations from comparatively slender causes. Starr truly remarks, "Without doubt, during the period of active growth, heat regulation is highly unstable, and the temperature consequently more labile than at other periods of life." It would seem to be true that the process of growth causes pyrexia at times. Of course, the more stable the nervous system, the less the variations in temperature from this cause.

As an instance of how nervousness will run up a temperature in an infant, I observed recently in dressing a case of resection of a rib, that the temperature would run up from normal to 102° from fear and excitement, subsiding in a few hours to normal.

I think too much importance is given sometimes to temperature readings, and I believe it is not wise for the relatives of the sick child to watch the temperature too closely.

Elevations, which, perhaps, are anticipated by the physician and which are inevitable in the progress of the case in hand, cause an enormous amount of worry in the minds of the attendants, a good portion of which is sure to rebound upon the doctor.

The indiscriminate handing out of clinical thermometers to patients, as is the habit with some, with the remark, "You must take the temperature so often and if found so high, send for me," will tend to wear a man out unnecessarily and is sometimes adversely criticised. Of course, we all meet cases where it is eminently proper to have the temperature taken frequently and regularly for a time.

Too much importance may be laid upon the temperature in the professional mind also.

It is a fine point to know just how much significance to give to a fever in a child. Often a high temperature reading is not either important or dangerous as will be quickly discovered if the child be watched.

If a baby with a temperature of 104° and upwards is playful, unconcerned and not wasting one may be sure that a trivial cause is at work and that the fever will soon subside. The prognosis is good. So it should be borne in mind that slight causes will sometimes run a baby's temperature up very high with little discomfort or danger to it.

In judging then, of the symptomatic value of pyrexia in the young, we should observe its effects and the effect of the disease present upon the patient and so be able to judge of the gravity of the case; paying more attention to the effects of the fever than its height, and always bearing in mind that high fever is a common symptom in the diseases of infancy. The younger the child, of course, the truer all this is.

The thermometer readings in the young, because of this great susceptibility to pyrexia, are not of such value in diagnosis and prognosis as in the adult. Nor can the severity of the

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disease always be judged by the temperature range.

A very serious disease may be present, as enteric fever or pneumonia, and yet the temperature may be distinctly atypical, perhaps not read higher than  $102^{\circ}$  F., although the case may terminate fatally and the diagnosis be proved by the autopsy.

A well-known example is tubercular meningitis. I have attended a case of this disease where the temperature never went higher than  $100^{\circ}$  F.

As a rule children with fever perspire comparatively little and so are not relieved much by evaporation. For this reason the skin often has a pungent burning feeling when fever is present. On the other hand, radiation of heat in the child is immense, accounting for from 60 to 70 per cent. of the heat lost. The more the skin is exposed, the greater the radiation by the cooling of its surface; again, the cooler the surrounding air, or water, if the child is in a bath, the greater the amount of heat lost.

Carrying a sick baby through the streets in cold weather will frequently run the temperature down several degrees. I shall have more to say in regard to this phase further on.

Pyrexia in the young is apt to take on irregularity. The temperature is apt to show surprising and great remissions, and at some hour in the day is apt to approach the normal to within a degree or so. This is the rule to which there are, of course, exceptions.

A series of careful observations has impressed me with the belief that if possible the temperature of a child should always be taken in the rectum, giving the thermometer two more minutes than it calls for. The rectal temperature informs one of the very worst there is to know, running about one degree higher than when taken in the axilla and one-half degree higher than when taken in the mouth. We are informed of hyperpyrexia and it also helps us in making our diagnosis, informs as to the severity of the case, and if no fever be present, we are sure in most instances that no serious disease is imminent.

In order to be sure that the highest and lowest temperature has been recorded in the case, it is sometimes necessary, for instance, before the diagnosis is made with certainty, to have the nurse use the thermometer every three hours for a day or two, because these variations *may occur any time in the twenty-four hours*. In this way

only can we be sure that the highest and lowest temperature has been recorded.

As to the prognosis, Sturges lays down the following rules. "The pyrexia is good, *ceteris paribus*, which is lower in the morning than in the evening; which is equable, with but slight variations from day to day; which has a single rise and a single fall in twenty-four hours and whose lowest morning level approaches the normal line. The pyrexia is bad, *ceteris paribus*, which is highest in the morning, which ascends from evening through the small hours; which has two or more rises or falls for one day and night; which either maintains its level above  $103^{\circ}$  F. pretty equably for many hours together or else is very variable from day to day, and conformable to no pattern." Temperatures below  $102\frac{1}{2}^{\circ}$  F. may be expressed as moderate. If amounting to  $104^{\circ}$  or  $105^{\circ}$  F., severe, and if running up to  $106^{\circ}$ ,  $107^{\circ}$  F. or above, decidedly dangerous.

While a temperature of  $106^{\circ}$  F. is quite often seen by the pediatricist, and often with recovery following, much above that in my experience is generally followed by a fatal ending.

A sustained high temperature, decidedly above  $103^{\circ}$  F., and ranging upwards at times to  $104^{\circ}$  or  $105^{\circ}$  F., is cause for serious thought and careful treatment, for while fever is but an important symptom, a maintained high temperature is very destructive, fairly burning up the tissues.

If the cause of a fever can be ascertained, and that cause be a removable one, it is a pleasant duty to treat the fever.

Thus castor oil and calomel quinine and the salicylates do yeoman service where indicated. Aconite and digitalis are also sheet anchors. Diuretics, diaphoretics and laxatives are all very useful where indicated. In my experience it is never necessary and would be often dangerous to use the coal tar products to reduce the temperature in the fevers of infancy. I merely mention them to condemn them.

Fever calls for active treatment for the reduction of the temperature when the elevation causes certain symptoms or when it is so very high that the swift and soon production of such symptoms may be anticipated. These symptoms are principally drowsiness, delirium, convulsions, rapid and weak heart action, restlessness, and sleeplessness.

*Per contra*, if the child is calm, smiling and restful, too active interference is unnecessary.



Hyperpyrexia should always be combated as the body rapidly wastes when it is present.

As to food, nothing need be said in this presence, save to remark that I personally believe that food very often acts injuriously, increasing the fever when given in a solid form or in an improper form, or in too great quantities in fever cases. Witness the favorable drop in the temperature often following the use of a laxative, with complete withdrawal of food for a few hours. Fever consumes tissues to be sure; but the repair process must be gone about very carefully and slowly or we will but burden the exhausted organism and thus increase the fever and exhaustion.

While perspiration is slight, as a rule, in children, the skin is apt to be full of blood and to feel dry and hot. Pungent is the word that best expresses the sensation given on touching such a skin. In some cases the skin is pale. A bath with friction will send the blood into the skin. The friction is as important as the bath.

The cold friction bath is our best measure for the relief of fever in the cases where it is dangerous because of its height and persistence.

Properly given, the temperature in almost every case where it is used, will drop, commonly from two to three degrees and sometimes more, and the patient will fall asleep. Barusch gives the technique as follows: A suitable tub is filled three-quarters full of water at a temperature of 95°. Give the baby ten minims of whisky. Strip off the clothes and place it in the water with its head resting on the left arm of the nurse, while with her right hand she makes gentle but persistent friction all over the child's body. The water is reduced to 85° by adding cold water or ice to the bath.

The duration of the bath should be five minutes for a weak and ten minutes for a strong child. The baby should then be removed from the bath and wrapped up well in a sheet and blanket, and a hot water bottle put to its feet. Generally the child will lose all nervous symptoms, the face will assume a placid, restful expression and a quiet sleep follows.

"Prolonged shivering after the bath means that either the bath was too long or the temperature was too low."

"Cyanosis of the face demands cessation of the bath."

"Chattering of the teeth demands cessation of the bath."

Crying should not be heeded.

The reduction of temperature by irrigation is

in many cases very effective, and should always be tried faithfully before the cold bath be used.

Positive instructions should always be given that the lower end of the irrigator be not placed higher than 1½ feet above the anal opening. The water should be used at a temperature of 95° and should be encouraged to gush out alongside of the tube whenever the rectum fills, by pressing the tube gently to one side.

In this way about a gallon should be used.

Sometimes irrigation given most carefully, fails to make any great impression upon the temperature. It is then well to repeat the procedure within three hours. If this does not bring the temperature down materially, irrigations should be abandoned in that particular case and other measures resorted to.

The alcohol and water sponge bath is very efficient in some cases, being all they need. It should always be tried before using the cold bath. It is always grateful to the patient, never frightens and will quite often reduce the temperature to within safe limits. Like irrigation, it is of much more value in some cases than in others as a febrifuge.

Lavage will reduce temperature in cases where it depends upon conditions in the stomach such as irritating food or masses of mucous. The child will almost always fall asleep afterwards.

Where intestinal infection causes the fever, enteroclysis is of great value, washing out all irritating and infectious material. Besides using the same precautions as in giving irrigations, the water should be boiled a long time, sterilized, and should be used at a temperature of 98° F.

The addition of a drachm of salt to the total quantity of water is said to render it more soothing. The salt should be boiled with the water.

Subnormal temperature is deserving of more attention than has been given to it.

Some children die with the temperature very much subnormal.

This is particularly true in the wasting diseases where the vitality is brought very low.

The principal conditions in which the temperature is apt to be found subnormal are exposure to cold, severe fluxes, malnutrition, Athrepsia, prematurity, inanition, collapse, heart disease, anemia, hemorrhage and for a short time after acute diseases.

A temperature persistently below 97° shows a serious failure of the powers of life and, in those cases where the mercury fails to leave the bulb, death soon takes place.

In premature cases a constant subnormal temperature is a bad sign.

I was drawn to study subnormal temperatures by noticing that many of those brought to the Babies' Hospital during more particularly the cold months, had temperatures decidedly subnormal, due to the exposure incident to the journey from their homes. For instance, a malnutrition case was brought in during January and, on attempting to take the temperature, it was found that the mercury would not leave the bulb. In January a premature baby was brought in with a temperature of 96; another in November with a temperature of 94; another in January with a temperature of 95 2-5. In November another admitted with a temperature of 94 1-5. Three hours later the temperature was again taken in this case, and 99° was recorded. One in October showed 94 3-5°, six hours later 98 1-5° was recorded. In January a case came in with a temperature of 95 2-5, three hours later the temperature reached 98, and so the list might be extended.

I have picked out 25 of the lowest of these subnormals and they show an average temperature of 95 2-5° on admission.

Surely, all things considered, I would rather treat a child with an elevation of temperature of six degrees than one with a depression of a like amount.

The quickest and best way to bring the temperature up to normal in these cases is to give whisky and strychnine and to place the patient in a mustard bath at a temperature of 105° for five minutes. Gentle friction should be made. The child should then be wrapped in blankets.

The bath will elevate the temperature several degrees and stimulate the powers considerably. In one case which I observed, where the temperature was 96 when the child was placed in the bath, the procedure brought the temperature up to 101.

## TRANSACTIONS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, NOVEMBER 20, 1906.

The President, W. F. CAMPBELL, M.D., in the Chair.

There were about 200 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

## REPORT OF COUNCIL.

The following candidates have been accepted by the Council:

John Daniel Freitag, Jr., 433 Ralph Avenue.  
Charles E. Manning, 480 Putnam Avenue.  
Otto Niedner, 110 Pennsylvania Avenue.  
Joseph Raphael, 100 Sixth Avenue.

## ELECTION OF MEMBERS.

The following, having been duly proposed and accepted by the Council, were declared, by the President, elected to active membership:

Edward John Murphy, 733 Carroll Street.  
Charles E. Wuest, 1024 Bushwick Avenue.

## APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Irving Cyrus Allen, 113 Albany Avenue, N. Y. University, 1898.

Proposed by H. A. Fairbairn, seconded by J. A. Lee.

Albert W. Beck, St. John's Hospital, L. I. C. H., 1905.

Proposed by W. F. Dudley, seconded by Membership Committee.

Leo J. J. Commiskey, 96 Lincoln Place, P. & S., 1904.

Proposed by W. F. Campbell, seconded by Membership Committee.

La Willa Mott Cornelius, 1420 59th Street, Bellevue, 1891.

Proposed by J. W. Malone, seconded by Membership Committee.

Horatius Latto, 68 Rockaway Avenue, L. I. C. H., 1890.

Proposed by W. F. Campbell, seconded by Membership Committee.

E. J. Leavitt, 717 Bushwick Avenue, P. & S., 1901.

Proposed by O. P. Humpstone, seconded by W. F. Campbell.

William Lippold, 953 Gates Avenue, L. I. C. H., 1904.

Proposed by N. P. Geis, seconded by Membership Committee.

William Henry Lohman, Brooklyn Hospital, P. & S., 1904.

Proposed by W. F. Dudley, seconded by Membership Committee.

Norman Roth, 128½ Noble Street, L. I. C. H., 1906.

Proposed by M. E. Connor, seconded by W. F. Dudley.



H. Schuhman, 596 Bainbridge Street, N. Y. Univ., 1902.

Proposed by W. F. Campbell, seconded by Membership Committee.

William Sidney Smith, Brooklyn Hospital, P. & S., 1905.

Proposed by W. F. Dudley, seconded by Membership Committee.

Zohlap K. Theodorian, 867 Lafayette Avenue, N. Y. University, 1880.

Proposed by C. G. Crane, seconded by Membership Committee.

Henry P. Vaughan, 89 Bay 26th Street, P. & S., 1897.

Proposed by J. W. Malone, seconded by Membership Committee.

N. H. Wallace, 196 Prospect Park West, Med. Col., Va., 1899.

Proposed by W. A. Sherwood, seconded by Membership Committee.

Alfred W. White, St. John's Hospital, Cornell, 1905.

Proposed by W. F. Dudley, seconded by Membership Committee.

Jerome Milton Woodle, 1024 Halsey Street, Cornell, 1903.

Proposed by W. F. Campbell, seconded by Membership Committee.

#### SCIENTIFIC PROGRAM.

1. PAPER: THE MEDICAL TREATMENT OF THOSE GASTRIC DISORDERS IN WHICH THE HELP OF THE SURGEON IS OFTEN DEMANDED.

BY CHARLES G. STOCKTON, M.D., OF BUFFALO, N. Y.

2. PAPER: CERTAIN SURGICAL ASPECTS OF CHRONIC GASTRIC DISEASE.

BY JAMES G. MUMFORD, M.D., OF BOSTON, MASS.

#### EXECUTIVE SESSION.

DR. BRISTOW made a motion that the Chair appoint a Committee to investigate the subject of the Correspondence School of Nurses, and report at the next meeting of the Society, with suggestions as to what the medical profession ought to do in this matter. Seconded and carried.

Adjourned. JOHN A. LEE, *Secretary*.

#### THE BROOKLYN PATHOLOGICAL SOCIETY.

470TH REGULAR MEETING, OCTOBER 11, 1906.

The President, R. W. WESTBROOK, M.D., in the Chair.

#### EPITHELIOMA OF EAR.

DR. WM. C. BRAISLIN read notes.

#### Discussion.

DR. J. E. BLAKE stated that, as the previous speaker had said, epithelioma of the ear is comparatively rare. His father, an ear specialist, had informed him that, in the course of nearly a dozen years of dispensary work in two different clinics, he never saw a case at either clinic; but that he had had one case in private practice. It was a large epithelioma in a man aged 65 years or more, which had begun just anterior and inferior to the external auditory meatus, and then widened out posteriorly over the mastoid process. It had been there for several years, and was giving the man but little pain or discomfort. There was some discharge and some ulceration. He had been told by one or two doctors that it was of malignant nature, and came to the speaker's father for the purpose of obtaining a positive diagnosis. The growth was pronounced to be malignant, whereupon he hied himself away to a quack in the central part of the State, and remained under treatment for a number of weeks. Some form of arsenical preparation was applied and apparently the tumor was eradicated, for there has been no return of the growth in the last five years. Stenosis of the meatus followed cicatrization.

It is possible that this line of treatment may prove of service in selected cases. For it is well known, that sometimes these arsenical preparations are used with advantage. In other cases they are used with very serious disadvantage.

In this connection Dr. Blake stated that he knew another person, a strong, hearty, middle-aged lady, who went to this same quack suffering from chronic eczema. She remained at his place for about three weeks, was treated with arsenical (?) pastes, and developed symptoms of very acute gastro-enteritis. Her death certificate read gastro-enteritis, but he has always believed that it ought to have read acute arsenical poisoning.

If arsenic pastes are to be used, they should be applied by one familiar with their danger, and with the necessary cautions to be observed in their application.

DR. G. G. HOPKINS said he had never seen until Monday, a case of epithelioma of the ear. That day a case came under his observation. The whole ear was involved. The growth measured six inches in length and 1½ inches in breadth.

The man was 76 years of age, and the growth had lasted eighteen months. He had been for a time under treatment by Kilner, the cancer quack, but the growth progressed very rapidly, and on Monday he came under his observation. The discharge was free. At times the pain was excessive. The discharge was so offensive that when the man left the speaker's office, he had to open the windows to free the room of the odor. The patient has been to see him every day since. He is using the X-ray and a preparation of formaldehyde. Formaldehyde, if it does not give too much pain, will deodorize these cancerous growths better than anything he has ever seen. One to three parts makes a very good application. The man was in his office to-day with absolutely no odor. The tumor has shrunk in breadth very decidedly; in length probably  $\frac{1}{4}$  inch.

Dr. Hopkins said that it was as yet too early to know what he was going to do with it, but the measures he had employed certainly had some effect on the growth. Whether the benefit was due to the formaldehyde or to the X-ray, he thought it was hard to tell just yet, but the X-ray is beginning to be regarded, in epithelioma of the lip, as almost a specific. He never had a case of epithelioma of the lower lip that did not yield to the X-ray.

Dr. W. C. BRAISLIN said that he was interested in Dr. Blake's remarks regarding the use of arsenical paste. John Wyeth, in an article published some years ago, stated that if he had an epithelioma on his face, he would employ arsenical paste to take it out. Whether his opinion in later years was the same as it was then the speaker did not know. Dr. Braislin said he very well remembered, in the neighborhood where he grew up, a quack who used to be called the "black doctor," who treated all kinds of cancers with some preparation of arsenic—arsenical paste in some form—and treated many of them successfully. There is no doubt that when small enough they may be thus treated, and even some large ones yield to it. He thought, however, that the knife is a preferable instrument in most cases. When the growth is confined to the external ear, it is very easy to cut it out and close the space over.

In a case like Dr. Hopkins' it seemed to Dr. Braislin that the proper treatment would be to remove the growth by excision. If it could not be eradicated very completely, there might be then a field for the use of Coley's serum or the X-ray.

For these particular tumors Dr. Coley does not recommend his preparation because it has proven unsuccessful in many epitheliomatous cases, and hence it is often our last resort. He believes everyone should become familiar with the different methods of treating these tumors.

PAPER: HEART BLOCK (STOKES-ADAMS DISEASE).  
A CASE AND AUTOPSY, BY GLENTWORTH R. BUTLER, M.D.

Dr. R. CLARK described the findings at autopsy.

Dr. H. A. FAIRBAIRN said that the clinical picture presented by this case, one might say, was a familiar one to the clinician. Although these cases are not frequent, still they do occur. The explanation of them, of course, is of recent years. There is one point he thought well to bear in mind, and that is, that when these temporary periods of unconsciousness appear at any time of life, connected with slowing down and intermission of the pulse, they ought to direct attention to the heart. He knew of a case which occurred several years ago. A prominent gentleman of New York City was under the observation of several men. A neurologist maintained that he had epilepsy and a clinician diagnosed the case as degeneration of the heart. He was a man of means and was sent abroad to consult Charcot. Charcot had him watched night and day for three weeks. At the end of that time he said the diagnosis of degeneration was correct and that the diagnosis of epilepsy was wrong. So the case proved finally. That man greatly improved; he changed his method of life and changed his occupation.

Dr. Fairbairn thought it is well for us to bear in mind that physiologists have taught us for years that there is normally a retardation in the muscular impulse as it passes from the auricle to the ventricle, but they could not give us an explanation until His demonstrated the bundle of muscle which passed from the auricles to the ventricles. The contraction of the heart is a conduction of muscular activity from base to apex. The muscular fibres are almost entirely wanting at the auriculo-ventricular division and this small bundle of His acts as the limited conductor over this barrier. When for any reason it refuses to act it, of course, retards or entirely "blocks" the muscular wave and the ventricle ceases to functionate and the Adams Stokes phenomena occur. They, by the way, occur at any time of life and in connection with any disease, and may be acute or chronic and may result in recovery.



DR. L. C. AGER wanted to know whether there was any indication found clinically of an insufficient mitral valve, and also what was the general state of nutrition of this patient; whether there was this general fatty deposition all over the body that was found in the heart?

DR. J. A. McCORKLE said that he wished to express his appreciation of this excellent presentation of the subject. It recalled vividly to his mind a case that he treated years ago when we knew very little about anything of this kind. The clinical history was almost complete; it would almost correspond to the one he had heard to-night, only in this case the gentleman was much older, and for days and days that man's pulse would run down to 12, 14 and 18 and the highest 24. The patient finally died. There was some convulsive action and loss of consciousness, and the history was almost as Dr. Butler had described.

The speaker thought the working out of this case deserving of all praise. He had been following some of the literature, but it is very indefinite, and he had seen nothing that corresponded in detail, or anything of the kind that we had heard to-night.

DR. G. R. BUTLER said with regard to the two questions asked, that there was a mitral systolic murmur and evidence of some slight regurgitation, but that was a secondary matter. The man's nutrition was good, but he was not what one would call a case of obesity.

So far as Dr. Butler was aware, this was the first case where fatty infiltration and degeneration of the bundle of His was found with this symptomatology. Pratt, of Boston, who worked for two or three years in John Hopkins, was interested in this particular subject, and had made a prediction that at some time fatty degeneration, as well as sclerotic changes, of this bundle would be found as the cause of it. Of course, the main point of interest about this whole case is the demonstration of the cause of the symptoms.

The New York Obstetrical Society has elected the following officers for 1906-07: President, Dr. Brooks H. Wells; Vice-President, Dr. George H. Mallett; Second Vice-President, Dr. W. E. Studdiford; Recording Secretary, Dr. Howard C. Taylor; Assistant Recording Secretary, Dr. William E. Stone; Corresponding Secretary, Dr. E. E. Tull; Treasurer, Dr. J. Lee Morrill; Pathologist, Dr. Franklin A. Dorman. The society now numbers sixty-nine members, with monthly meetings at members' houses.

## Brooklyn Medical Journal.

WILLIAM C. BRAISLIN, M.D.  
Editor-in-Chief.

JAMES P. WARBASSE, M.D.  
JOHN A. LEE, M.D.  
Associate Editors.

CLARENCE R. HYDE, M.D.  
Medical News Editor.

G. L. HARRINGTON,  
Business Manager.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York. Authors desiring Reprints of their papers should state on the galley proof the number of Reprints desired.

Each contributor of an Original Article will receive five copies of the JOURNAL containing his article, on application at the Library of the Society, 1313 Bedford Avenue.

A limited number of black and white drawings to illustrate papers will be reproduced by the JOURNAL free of charge. Electrotypes will be furnished at cost.

Alterations of the proof will be charged to authors at the rate of sixty cents an hour, this being the printers' charge to the JOURNAL.

Entered at Brooklyn, N. Y., Post Office as second-class matter.

BROOKLYN-NEW YORK, DECEMBER, 1906.

### BROOKLYN MEDICAL JOURNAL.

With this issue of the JOURNAL its publication ceases.

The JOURNAL, during the twenty years of its existence, has furnished an instrument for the publication of the medical affairs of the City and Borough of Brooklyn, and by virtue of its position as the official organ of the Medical Society of the County of Kings, as well as the publishing medium of the transactions of other medical societies, it has largely reflected the medical activity of the city.

It is a pleasure to the Editor to acknowledge in the closing pages of the JOURNAL the valuable assistance which has always been readily accorded him by his confrères.

### NEW OBSERVATIONS AS TO THE SIZE OF THE THYMUS GLAND.

So much attention has in late years been directed to the glandular organs of the body and their secretions, among which the thymus gland has received not a little consideration, that the study of Drs. Bovaird and Nicoll of this gland has a genuine interest.\*

Nearly 600 autopsies performed by the investigators furnished the material for investigation.

One important result of the investigation seems to be a disproval of the statement in

\*David Bovaird, Jr., M.D., and Matthias Nicoll, Jr., M.D. "The Weight of the Viscera in Infancy with Special Reference to the Weight of the Thymus Gland, *Arch. of Pediatrics*, Sept., 1906."

Gray's Anatomy and elsewhere, that the weight of the thymus increases in weight up to two years of age, and then gradually atrophies. The authors find that there is no evidence of a growth of the thymus after birth under ordinary conditions, but that under certain conditions the gland may enormously hypertrophy. The gland after birth undergoes gradual involution with, however, but slight loss of weight. Remarkable variations of its weight were found, relatively more than of any other organ of the body. Thus, in a single case, one from a fourteen months infant weighed 33 grams; in the opposite extreme was a three months infant, in which the thymus weighed but 0.7 gram. The writers conclude that the commonly accepted average weight of the thymus is excessive, the results of their examinations in the large number stated giving an average weight of 6 grams.

#### INFLAMMATIONS OF THE NASAL ACCESSORY SINUSES OF THE NOSE IN PNEUMOCOCCIC INFECTIONS.

Dr. S. T. Darling\* found in 37 autopsies in cases of death due to pneumococcic infections that in 34 cases, a percentage of 91, there was present in one or more of the nasal accessory sinuses an inflammation of a fibrino-purulent character. He believes that in these cases the inflammation of the sinuses antedated the inflammations in the lungs, meninges and other localities. Fifteen additional autopsies, in deaths due to other agencies than the pneumococcus, showed these sinuses involved in four cases.

The importance of the nasal accessory cavities as portals of entry of disease-bearing organisms is emphasized by this paper. We are glad to note that the writer promises a more detailed account of his conclusions at some time in the future. If the nasal accessory cavities shall be proven to figure so largely, as the paper would seem to indicate, in severe systemic disease invasions, it would seem that they must be classed with the vermiform appendix and other anatomical structures, fit for little but the surgeon's attention.

#### THE NEW JOURNAL OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

We take pleasure in announcing that the Associated Physicians of Long Island will hereafter publish their transactions in the form of a monthly journal. This extension of that organization's

usefulness will allow an inclusion of papers other than those read at its own meetings. Dr. Paul Pilcher, the Chairman of the Publication Committee of the Association, will have editorial charge of the new publication.

We extend to the new journal best wishes for its success and bespeak for it the cordial support of members of the medical profession.

#### THE GEORGE RYERSON FOWLER MEMORIAL FUND.

As the result of an opportunity given to the members of the Medical Society of the County of Kings, and to a selected list of laymen, a fund was contributed, which has been employed for the erection of a memorial tablet by the Tiffany Studios to Dr. George Ryerson Fowler and for the establishment of an endowment fund for the library of the society. This fund is known as the George Ryerson Fowler Endowment Fund, and will be used in perpetuity for the benefit of the library. The following are the contributors:

Horatio Mortier Adams.	J. W. Fleming.
S. J. Alkier	T. R. French.
Martin Amador	Theo. Frickenstein.
E. H. Bartley.	Charles P. Frischbier.
Edwin Bayha.	Otto Frischbier.
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Adam E. Fischer.	P. M. Pilcher.
J. C. Fitzsimmons.	J. O. Polak.

\**Journal of American Medical Association*, Nov. 10, 1906, pp. 1561-1563.



R. H. Pomeroy.	C. H. Terry.
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W. H. B. Pratt.	Frank Van Fleet.
E. Rauth.	J. P. Warbasse.
Gen. Roe and staff.	H. G. Webster.
H. A. Rogers.	V. W. Weed.
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C. T. Sauer.	C. T. Wessels.
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C. E. Spencer.	Walter Wood.
F. H. Stuart.	F. W. Wunderlich.
J. J. Terhune.	O. Zellhoefer.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. John B. Byrne, Jr., has removed to 224A Sixth Avenue.

Dr. Julius H. Moore, formerly of 979 Madison Street, has removed to 209 Lincoln Road.

The will of the late Mrs. Caroline Polhemus, the donor of the Polhemus Memorial Clinic, gives \$300,000 as an endowment fund to this institution.

The death is chronicled of Dr. Harry Heth Rodman, of Buffalo, the son of the late Thomas H. Rodman, former President of the Regents of the Long Island College Hospital.

On November 23d a fair for the furnishing of the children's ward in the new Long Island College Hospital building was held at the old Nesmith mansion, on Remsen Street.

Dr. Frederick D. Crawford has removed to 369 Clinton Street. Dr. Crawford has recently been chosen to fill the chair of medical jurisprudence in the Brooklyn Law School of the St. Lawrence University, from which institution he received the degree of LL.B., in 1905. He has recently been admitted to practice at the New York State Bar.

On account of a disagreement with the superintendent of nurses of the German Hospital, of this Borough, the entire house staff resigned in

a body to express their disapproval. Their places were quickly filled.

The *Long Island Medical Journal* is the title of a new local publication, edited by Dr. Paul M. Pilcher, and published under the auspices of the Associated Physicians of Long Island. This journal will in a great measure take the place of the BROOKLYN MEDICAL JOURNAL, which ceases publication with the present issue. It will cover all the Island news, reporting transactions of all the county societies, and in addition give full accounts of the meetings of the different sections of the Kings County Medical Society. It will be almost distinctively a local journal, and as such should receive generous support. The first number will be published in January, 1907, and will appear regularly the fifteenth of each succeeding month.

The Board of Directors of the new Jewish Hospital, corner of Classon and St. Marks Avenues, announce the following appointments to the hospital staff.

*Surgeons:* Chief, Dr. H. Beeckman Delatour; associates, Dr. J. Bion Bogart and Dr. Warren L. Duffield; assistant surgeons, Dr. William Linder and Dr. George I. Miller.

*Physicians:* Chief, Dr. Jacob Fuhs; associates, Dr. Joseph Merzbach, Dr. Leon Louria; assistant physicians, Dr. Jacob Londoner, Dr. William K. Jacobs.

*Gynecologists:* Chief, Dr. George McNaughton; associates, Dr. John O. Polak, Dr. Albert M. Judd; assistant gynecologists, Dr. Manasseh J. Malament, Dr. Charles H. Tag.

*Obstetrician:* Dr. O. Paul Humpstone, chief; Dr. Emanuel J. Leavitt, associate.

*Neurologist:* Dr. William Browning, chief; Dr. E. F. Luhrsen, associate.

*Eye:* Dr. William Simmons, chief; Dr. H. M. Smith, associate.

*Ear:* Dr. John E. Sheppard, chief; Dr. Charles W. Stickle, associate.

*Nose and Throat:* Dr. Thomas French, chief; Dr. Purdy H. Sturges, associate.

*Skin:* Dr. James McF. Winfield, chief; Dr. J. Franklin Marshall, associate.

*Pathologist:* Dr. S. R. Blatteis, chief; Dr. B. F. Knause, associate.

*Radiographist:* Dr. Charles E. Eastman.

*Cystoscopists:* Dr. Paul M. Pilcher, chief; associate, Dr. Victor H. Pentlarge.

*Consultants:* Surgery, Dr. Lewis Pilcher; Medicine, Dr. John A. McCorkle; Gynecology, Dr. Ernest Palmer.



## VALEDICTORY.

Apropos of the termination of the publication of the JOURNAL the following poetical contribution has been received.

A soul doth never die,  
Spirit of the quick and dead  
Am I.  
And those who are  
And those who were  
Are part of my Infinity.

Tho' my material form  
Will greet your eyes no more,  
Your kindred's voices  
From the other shore, and  
That part of yourselves, which  
Gave me life, will, like  
Aurora, heralding the morn,  
Glorify my being,  
To ages yet unborn.

JOHN C. MACEVITT.



## BOOK REVIEWS.

THE EYE AND NERVOUS SYSTEM; THEIR DIAGNOSTIC RELATIONS. By Various Authors. Edited by Wm. Campbell Posey, A.B., M.D., and William G. Spiller, M.D. Phil., Lond., J. B. Lippincott Co., [c. 1906.] xi, 988 pp., 8 col. pl. 4to.

Without any disparagement to the other sections, special mention may be made of the following chapters: The Psychology of the Visual Act, by Mills; The Extra-Ocular Muscles, by Duane; Tumors and Other Lesions of the Brain, by Spiller; Parasyphilitic Affections by Dercum; Diseases of the Spinal Cord, by Weisenberg, and Neuroses and Psychoses, by de Schweinitz. It is noted with pleasure that the term *astigmia*, as advocated by Burnett, is used in place of astigmatism.

Inasmuch as the results of the latest researches are embodied in this work, doubtless it will be of great value to the oculist who wishes to know more of neurology and to the neurologist who wishes to know more of ophthalmology.

JAMES W. INGALLS.

ON THE NATURE, CAUSES, VARIETY, AND TREATMENT OF BODILY DEFORMITIES: A Series of Lectures Delivered at the City Orthopaedic Hospital in the Year 1852 and subsequently, by the late E. J. Chance, F.R.C.S. Eng. Edited by John Poland, F.R.C.S. Eng. *Second Edition*. In Two Volumes. Vol. I. Lond., Smith, Elder & Co., 1905. xlviii, 315 pp. 12mo. Price: Cloth, \$1.50 net.

This volume comprises a series of lectures delivered by the late Mr. Chance to his students over fifty years

ago, and is edited by Mr. Poland, his associate. It is published as a second edition, the editor attempting to bring it somewhat up to date by frequent comments, foot notes, and reports of his own cases. These numerous interjections, however, make reading a little difficult. Much of the original text is omitted as being obsolete, and it would seem that much more of the discussion on debatable points could have been cut out with advantage. The introduction is interesting in its treatment of the history of the development of specialism—the author, living in the early days of his specialty, is enabled to give a graphic and humorous account of what he had to contend with, such as no later writer could do. This chapter alone would repay the reader for his study of the book. But there is much of interest to follow in the six lectures which make up this first volume, which deal with the causes of congenital and acquired deformities. This is a scientific study of the etiology and pathology, including a discussion of the hereditary and emotional influence on the development of the ovum, and the causation of congenital deformities from arrest of development, mechanical interference, and disease in utero. Acquired deformities are taken up in the two final lectures, deformities due to rhachitis and tuberculosis, and also causes affecting the contractile power of muscles with resulting paralysis and contractures. The illustrations, no doubt, were good in the author's day, but cannot compare with the modern photograph. There are portions of the subject which are treated too exhaustively, but a study of the book will be interesting and instructive.

CHARLES DWIGHT NAPIER.











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